Who's Minding The Kids?

Child Care Arrangements:
Fall 1991

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Who's Minding the Kids? Child Care Arrangements: Fall 1991

All demographic surveys including the Current Population Survey (CPS) and the Survey of Income and Program Participation (SIPP) suffer from undercoverage of the population. This undercoverage results from missed housing units and missed persons within sample households. Compared to the level of the 1980 Decennial Census, overall CPS and SIPP undercoverage is about 7 percent. Undercoverage varies with age, sex, and race. For some groups such as 20- to 24-year-old black males, the undercoverage is as high as about 35 percent. The weighting procedures used by the Census Bureau partially correct for the bias due to undercoverage. However, its final impact on estimates is unknown. For details see appendix C.

INTRODUCTION

The child care statistics shown in this report are for the estimated 31 million children under the age of 15 who were living with their mothers who themselves were employed during fall 1991 (September to December). How these children were cared for while their mothers were at work, the complexity of these arrangements, and the changes in arrangements that have occurred within the past decade are some of the topics presented in this report.

This report also estimates hourly costs for child care based on payments made for separate arrangements and for those shared by brothers and sisters in the same family. Since many young children now have both parents in the labor force, this report features the child care arrangements used by dual-employed parents according to their work shift. In addition, the availability of low cost child care arrangements is critical to a growing number of families in which the lone (unmarried) parent must be the sole income provider. This report explores the role that other adult household members play in providing child care services while the mother is at work.

Data on child care arrangements have been collected by the Census Bureau in prior supplements to the Current Population Survey (CPS) since 1958[1] and in supplements to the SIPP since 1984.[2] This report discusses the most recent statistics on child care arrangements in the United States based on data collected in the SIPP for the period September to December 1991. Data from earlier CPS and SIPP supplements on child care also are presented to show a historical perspective on changes that have occurred in the way families with working mothers arrange for the care of their children.

Population Coverage

Most of the child care data presented in this report profile the arrangements typically used for children (including any adopted or stepchildren) under 15 years of age, during the time their mothers were at work. There were an estimated 56.1 million children under age 15 living in the United States in the fall of 1991 (table A). About 55.4 percent of these children (31.1 million) were living with mothers who were employed; 9.9 million of these children were of preschool age and the remaining 21.2 million were of gradeschool age. Although not specifically discussed in this report, there were another 1.4 million children under 15 years of age whose mothers were unemployed (looking for work) and 1.7 million children whose mothers were enrolled in school.

There were an additional 1.3 million children under 15 years of age who were living with their fathers (and not with their mothers) or with male guardians (table A), but this report does not analyze the child care arrangements for these children. Estimates from the March 1991 CPS indicate that there were 1.7 million children under 15 years of age living only with their fathers or male guardians, an estimate larger than that derived from the current 1991 SIPP.[3] The lower numbers of children in the 1991 SIPP Panel compared with the March 1991 CPS suggest that the 1991 SIPP estimates may not be accurate reflections of the number of children living with their fathers or male guardians.

[1]Marjorie Lueck, Ann Orr, and Martin O'Connell, Current Population Reports, P23-117, Trends in Child Care Arrangements of Working Mothers; Martin O'Connell and Carolyn Rogers, Current Population Reports, P23-129, Child Care Arrangements of Working Mothers: June 1982.

[2]Martin O'Connell and Amara Bachu, Current Population Reports, P70-9, Who's Minding the Kids? Child Care Arrangements: Winter 1984-85; Martin O'Connell and Amara Bachu, Current Population Reports, P70-20, Who's Minding the Kids? Child Care Arrangements: 1986-87; Martin O'Connell and Amara Bachu, Current Population Reports, P70-30, Who's Minding the Kids? Child Care Arrangements: Fall 1988.

[3]Arlene Saluter, Current Population Reports, P20-461, Marital Status and Living Arrangements: 1991, table 4.

Table A. **Population Universe for Child Care Module: Fall 1991**

[In thousands. Numbers represent the average monthly estimate of children or their parents/guardians who are either in the labor force or enrolled in school]

Population	All children	Children under 5 years	Children 5 to 14 years
Number of parents[1]			
Mothers living with children	30,165	(NA)	(NA)
Employed	19,260	7,990	14,911
Unemployed	880	370	681
Enrolled in school	1,044	594	642
Other statuses	8,981	(NA)	(NA)
Fathers living with children	1,192	(NA)	(NA)
Employed	970	304	728
Unemployed	73	32	50
Enrolled in school	9	-	9
Other statuses	140	(NA)	(NA)
Number of children			
All children[2]	56,088	19,458	36,631
Children in child care module[3]	35,499	11,344	24,154
Living with mother	34,198	11,025	23,172
Mother employed	31,074	9,854	21,220
Mother unemployed	1,393	439	953
Mother enrolled in school	1,731	732	999
Living with father	1,301	319	982
Father employed	1,201	289	912
Father unemployed	91	30	61
Father enrolled in school	9	-	9

- Represents zero.
NA Ages for children with parents not in child care module not available.

[1]The total numbers of parents is less than the sum of the two age groups as some parents have children in both age groups.
[2]Total estimated number of children regardless of parent's labor force or enrollment status.
[3]Information collected for only the three youngest children in the household.

Terms Used in This Report

Children under 15 years of age in this report are divided into two major categories: preschool-age children (under 5 years of age) and gradeschool-age children (5 to 14 years of age). The term "child care arrangement" describes how children are cared for during the time their mothers are working.

Child care arrangements for preschoolers include not only informal arrangements where neighbors, relatives, or older brothers and sisters look after children either in the child's home or in their own homes, but also organized child care facilities such as day or group care centers and nursery schools or preschools. The reader should be cautioned that these distinctions may not always be clear to the respondent and may even be affected by regional differences in terminology or governmental regulations used to categorize child care arrangements.

Also included are responses which indicate that mothers were caring for their children while at work (either at home or outside their home) or that fathers were the care providers for their children at home during the mother's working hours. In cases of blended families which contain stepparents or legal guardians living with children, the term "mother" or "father" is used to include those stepparents or adults who are related to the children they live with by marriage or legal order although they may not be their natural parents.

Since school-age children are included in the survey, child care, in its broadest sense, also includes the time children are enrolled in kindergarten or gradeschool when their parents are at work. While schooling is generally not considered to be a child care arrangement, especially for older children, the fact remains that the school system does provide a type of supervised care for children during the hours their parents are at work. An additional child care arrangement category "school-based activity before or after school" is included. This category consists of school-based supervised activities such as sports, music, and arts and crafts classes that are outside the regular school hours.

In this report, "latchkey kids" are defined as those children who are reported to be in self care for some period of time during their mother's working hours. This type of arrangement may be prevalent for older children, especially after school. It is possible that these reported incidents are underestimated if parents leave their children alone for brief periods of time after school or only in emergencies and forget to report these instances as regular forms of child care.

Some parents may use more than one type of child care arrangement in a typical week; therefore, two categories of arrangements are shown in this report, primary and secondary. The primary child care arrangement refers to what the child was usually doing or the way the child was usually cared for during most of the hours the child's mother was at work. If other arrangements were used in addition to the primary arrangement, the one used second most frequently was called the secondary arrangement.

For example, if a child was in gradeschool most of the time his or her mother worked and then cared for himself or herself after school, the primary child care arrangement for this child would be "enrolled in gradeschool" and the secondary child care arrangement would be "child cares for self."

Information on child care arrangements used by parents for their children was asked of the wife and not of the husband in the case of married-couple families. As such, the recorded child care arrangement was the one used while the wife, not the husband, was in the labor force or in school. In families where only the mother was present or where the child was cared for by a legal guardian (excluding foster parents), information on child care arrangements was obtained from that parent or guardian.

In cases where the mother was both employed and enrolled in school, questions on child care arrangements pertain only to the time the respondent was at work. If the respondent was enrolled in school and also looking for a job, the responses only refer to the time the respondent was in school. The terms "employed" or "working" mothers are used interchangeably in this report to refer to mothers employed in the paid labor force in the month preceding the interview.

The definitions for day and non-day work shift used in this report are based on Bureau of Labor Statistics guidelines adapted for the work schedule items on the SIPP questionnaire.[4] Day shift in this report is defined as a work schedule where at least one-half of the hours worked were between 8:00 a.m. and 4:00 p.m. and where the shift was described by the respondent as being a regular daytime schedule. All other schedules having the majority of the hours worked outside the 8:00 a.m. to 4:00 p.m. core period are classified as non-day work shifts, including shifts reported as rotating or having irregular hours, regardless of the hours of employment.

HIGHLIGHTS

The principal findings of the survey are summarized below. (The figures in parentheses denote the 90-percent confidence interval of the estimate.)

[4]See J.N. Hedges and E.S. Sekscenski, "Workers on Late Shifts in a Changing Economy," Monthly Labor Review, Vol. 102, No. 9 (September 1979), pp. 14-22.

Child Care Arrangements and Trends Among Preschoolers

- There were 56.1 million children under age 15 in the fall of 1991. About 55.4 (±0.9) percent of these children, 31.1 (±0.5) million, had mothers who were employed; of these children 9.9 (±0.4) million were under 5 years of age and 21.2 (±0.5) million were 5 to 14 years of age.
- Among preschool-age children of employed mothers in fall 1991, 23 (±1.9) percent were in organized child care facilities most of the time their mothers were at work, down from 25.8 (±1.6) percent in 1988.
- The proportion of preschoolers cared for by family day care providers declined from 23.6 (±1.6) percent in 1988 to 17.9 (±1.7) percent in 1991. Offsetting the decline in family day care providers, the proportion of preschoolers cared for by their fathers while their mothers were at work increased from 15.1 (±1.3) to 20 (±1.8) percent.
- Preschoolers whose mothers were married were three times more likely to be cared for by their fathers than were preschoolers whose mothers were lone (unmarried) parents (22.9 ± 2.1 versus 7.1 ± 2.7 percent, respectively). On the other hand, lone mothers' children were more likely to be cared for by their grandparents (24.8 ± 4.6 percent) than were married mothers' children (13.7 ± 1.7 percent).

Child Care Arrangements of Gradeschool Children

- About 16.2 (±0.5) million or 76.4 (±1.3) percent of the 21.2 (±0.5) million gradeschool age children of employed mothers spent most of their time in school while their mothers were working.
- Less than 1 (±0.4) percent of gradeschool children of lone mothers were primarily cared for by their fathers during their mothers' working hours compared with 8.4 (±1.0) percent of the children of married mothers.
- Grandparents and other relatives were more likely to be the primary sources of child care for the children of lone mothers (10.2 ± 2.0 percent) than for children of married mothers (3.8 ± 0.7 percent).

Latchkey Kids

- About 1.6 (±0.2) million or 7.6 (±0.8) percent of the 21.2 (±0.5) million gradeschool-age children of employed mothers were reported to be in self care for some part of the time their mothers were working. About one-third of these latchkey children (554,000 ± 106,000) were 5 to 11 years of age. In general, children were more likely to be latchkey kids with increasing age.

- Children 5 to 11 years of age whose mothers were full-time workers were four times more likely to be latchkey kids than those children whose mothers were part-time workers. No differences by the mother's employment status were found for children 12 to 14 years of age.
- For both younger and older gradeschool-age children, those living in suburban areas were more than twice as likely to be left alone for some time during their mothers workday than were those living in nonmetropolitan areas. The proximity of neighbors and other children in the suburbs may account for this difference. No difference was found in the likelihood of a child being left alone between those living in central cities compared with those living in the suburbs.

Organized Child Care Arrangements

- Use of organized child care facilities for preschoolers was more likely if the child's mother was working full-time (27.8 ±2.6 percent) than if she was working part-time (14.9 ± 2.7 percent).
- Among children living in families with incomes of at least $4,500 per month, one-third of preschoolers were primarily cared for by organized child care facilities compared with about 1 out of 5 children in families with lower monthly family incomes.
- Organized child care facilities were used more often for preschoolers residing in the South (28.8 ± 3.7) percent than in the Northeast (15.9 ± 3.8) or the Midwest (20.0 ± 3.5), the latter two regions utilizing organized facilities at levels that are not statistically different from each other.

Parents' Work Schedule and Child Care

- Of the 31.1 (±0.5) million children under age 15 in 1991 whose mothers were employed, 19.3 (±0.5) million had mothers who worked during the day at their principal job while 11.7 (±0.4) million had mothers who worked non-day shifts. Almost two-thirds of these 31.1 million children also had mothers who worked at full- time jobs.
- Child care in the child's own home was more prevalent among preschoolers whose mothers worked non-day shifts (47.4 ± 3.5 percent) than day shifts (27.1 ± 2.7 percent). Two-thirds of this in-home care for children whose mothers worked non-day shifts was provided by the father, compared with one-half of children whose mothers' worked day shifts.
- Preschool-age children whose mothers worked part-time at their principal job also were cared for more frequently in their own home (44.3 ± 3.5 percent) than those children whose mothers worked full-time (29.9 ± 2.7 percent).
- In-home child care arrangements for preschoolers were more prevalent when the childrens' parents worked split shifts (one day, one non-day schedule) than when both worked during the day at their principal job (46.4 ± 3.9 and 20.9 ± 3.2 percent, respectively).

Family Expenditures on Child Care

- Of the 19.2 (±0.6) million employed mothers in 1991 with children under 15 years of age, 34.5 (±1.5) percent reported that they made a monetary payment for child care services, down from 39.9 (±1.2) percent in 1988.
- An estimated $21.8 billion was spent on child care in 1991. Families paying for child care spent an average of $63.3 (±$3.9) per week, representing 7.1 (±0.5) percent of their total family income.
- Women in poverty paid a higher proportion of their monthly family income on child care, 26.6 (±4.9) percent, compared with women living in families that were not living in poverty, 6.9 (±0.5) percent. Proportionately fewer women in poverty paid for child care services (24.1 ±4.8 percent) than did women living above poverty (35.5 ±1.6 percent).
- In addition to the greater relative burden that child care costs place on poor families, no significant difference in actual weekly expenditures for child care was found between families below ($59.5 ±$16.1) and above ($63.5 ±$4.1) the poverty line who actually paid for child care. This suggests that among families having to pay for child care, poor families may have to compete for similar child care services against families with greater economic resources.

Costs of Individual Child Care Arrangements

- Some families pay for child care on an individual child basis while others pay for care for more than one child sharing the same provider. Of the 6.2 (±0.3) million children for whom payments were made on an individual basis, 4.6 (±0.3) million of those children were in child care for 10 or more hours a week. Those using 10 or more hours of child care per week paid $2.07 (±$0.13) per hour for each child receiving care.
- The costs for organized child care facilities used for 10 or more hours a week amounted to $2.15 (±$0.13) per hour for each child. When child care was provided by nonrelatives who came into the child's home, the cost per child per hour was $2.73 (±$0.63), about $0.80 more per hour than when the child was brought to the provider's home ($1.93 ± $0.25).

Costs of Shared Child Care Arrangements

- When two or more children in a family shared the same child care provider for 10 or more hours per week, the cost of child care was $1.97 (±$0.39) per hour per child, not different from the amount when payments were made separately for each child ($2.07 ± $0.13 per hour).
- When payments were shared by more than one child in the family, care by relatives cost $1.09 (±$0.28) per hour per child compared to $1.88 (±$0.39) when payments were made separately for each child in the family. No "discounts" for child care sharing by the same provider were noted when either nonrelatives or organized child care facilities were used.

PRIMARY CHILD CARE ARRANGEMENTS FOR PRESCHOOLERS

The choice of child care arrangements for preschool-age children is one of the most important daily decisions parents make. It is an age when children are most dependent on a care provider's supervisory skills and often marks the time when children make their first prolonged social contacts with persons outside the immediate family.

Table B shows the distribution of the primary child care arrangements used in 1991 by parents for children under 5 years of age (preschoolers) during the hours their mothers were working. Thirty-six percent of these preschoolers were cared for in their own homes, mainly by their fathers, while 31 percent were cared for in another home, usually by someone not related to the child. About 23 percent of preschoolers (2.3 million children) were in organized child care facilities.

An additional 9 percent (855,000) of preschoolers were cared for by their mothers while working. The majority of these children (618,000) were cared for by their mothers who worked at home, thus eliminating potentially expensive commuting and child care costs. Only 2 percent of children (237,000) were cared for by their mothers at their place of work. In 1991, about one out of five preschoolers were cared for by their fathers while their mothers were at work.

Grandparents played an important role in providing care for their grandchildren: about 16 percent of children under 5 years of age were cared for by their grandparents during their mothers working hours. About half of these children were cared for in their grandparent's home. Relatives other than grandparents and fathers played a smaller role in providing child care services, amounting to about 8 percent of all arrangements for preschoolers.

Nonrelatives provided child care services for preschoolers at a level comparable to that of organized child care facilities. About 23 percent of children under 5 were cared for by nonrelatives. Most of the time, the children were sent to the provider's home (18 percent) rather than the providers going into the children's home (5 percent).

Table B. **Primary Child Care Arrangements Used by Employed Mothers for Children Under 5 Years by Age of Child: Fall 1991**

[Numbers in thousands]

Type of arrangement	All children		Less than 1 year		1 and 2 years		3 and 4 years	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total	9,854	100.0	1,650	100.0	4,021	100.0	4,183	100.0
Care in child's home	3,522	35.7	668	40.5	1,555	38.7	1,299	31.1
By father	1,974	20.0	356	21.6	853	21.2	765	18.3
By grandparent	708	7.2	144	8.7	323	8.0	241	5.8
By other relative	313	3.2	45	2.7	156	3.9	112	2.7
By nonrelative	527	5.4	123	7.5	223	5.5	181	4.3
Care in another home	3,052	31.0	668	40.5	1,358	33.8	1,025	24.5
By grandparent	846	8.6	237	14.3	346	8.6	263	6.3
By other relative	443	4.5	93	5.6	190	4.7	159	3.8
By nonrelative	1,763	17.9	338	20.5	822	20.4	603	14.4
Organized child care facilities	2,268	23.0	189	11.5	705	17.5	1,375	32.9
Day/group care center	1,553	15.8	161	9.8	612	15.2	780	18.6
Nursery/preschool	716	7.3	28	1.7	93	2.3	595	14.2
School-based activity	52	0.5	-	-	5	0.1	46	1.1
Kindergarten/grade school	105	1.1	-	-	-	-	105	2.5
Child cares for self	-	-	-	-	-	-	-	-
Mother cares for child at work[1]	855	9.7	126	7.6	398	9.9	331	7.9

- Represents zero.

[1]Includes women working at home or away from home.

Variations in Arrangements by Marital Status of Mother

The use of a particular type of child care is in part dependent on the presence of family members who could be called on to look after children while their mothers are at work. Because the father is living in the same household as the mother, married mothers are much more likely than lone (unmarried) mothers to be able to depend on the child's father as a source of child care. Conversely, it may be that the child's grandparents or other relatives are more willing to help out in families where the father is absent. Table 1 indicates that this is indeed the case. Preschoolers whose mothers were married in 1991 were three times more likely to be cared for by their fathers than preschoolers whose mothers were lone parents (22.9 percent and 7.0 percent, respectively). On the other hand, lone mothers' children were more likely to be cared for by their grandparents (24.8 percent) than were married mothers' children (13.7 percent). They were also more likely to be cared for by other relatives (11.6 percent versus 6.8 percent, respectively).

In contrast, the proportion of children cared for in organized facilities did not differ according to whether or not the child's mother was married. Although the vast majority of organized child care facilities require cash payment and lone parents are often at a financial disadvantage compared with two earner married-couple families, reduced cost or low income child care programs may explain why differences in the usage of organized child care facilities did not emerge by the mother's marital status.

The proportion of children cared for by nonrelatives did not differ by the mother's marital status. About one-fourth of preschoolers were cared for by nonrelatives while their mothers were working, regardless of their mothers' marital status.

Variations in Arrangements by Age of the Child

As children grow from infancy to school age, employed women make considerable changes in child care arrangements in order to meet the changing demands of their families and of their employers. However, one of the problems that families face in finding child care for young children may be due to minimum age requirements for children admitted to organized child care facilities. Previous Census Bureau surveys have shown sharp increases between 1980 and 1992 in the proportion of women with infants who were participating in the labor force at the time of the survey. Estimates from the June 1992 Current Population Survey (CPS) show that 54 percent of all women who had a birth in the 12-month period preceding the survey were in the labor force, up from 38 percent in 1980.[5]

Data for fall 1991 indicate that there were 1.7 million children under 1 year of age whose mothers were employed in the labor force (table B). Eighty-one percent of these infants were cared for in either the child's home or another home. Another 12 percent were cared for in organized child care facilities, not statistically different from the 8 percent that were cared for by their mothers while they were working.

Among 1- and 2-year olds, child care either in the child's home or in another home accounted for 73 percent of all arrangements while organized child care facilities made up 18 percent of the primary care for these children. For 3- and 4-year-old children, care in either the child's home or in another home declined to 56 percent of all arrangements while organized child care facilities made up 33 percent of the primary care. For all ages of children shown in table B, the majority of children who were in organized child care facilities were in day care centers.

Trends in Child Care Arrangements: 1977 to 1991

Table C shows the distributions of the primary child care arrangements used by employed mothers for their children under 5 years old for selected survey years between 1977 and 1991. Between 1977 and 1988, care provided by relatives (excluding fathers) in the child's home declined from 12.6 percent in 1977 to 7.9 percent in 1988. Similarly, care provided by relatives in their own homes also decreased between 1977 and 1988 from 18.3 to 13.2 percent (table C). And, while no further decline occurred in the proportion of children cared for by relatives outside the child's home since 1988, in-home child care by relatives increased by 2 percentage points to 10 percent by 1991.

A noteworthy change in the type of child care arrangements used by preschoolers since 1988 was in the proportion of children cared for by nonrelatives in the providers home (table C). The proportion of children cared for by these providers sharply fell from 24 percent in 1988 to 20 percent in 1990. This marked the first substantial decline in the use of family day care providers since the mid-1980s. Declines in these services since 1988 may reflect the desires of parents to cut down on child care costs in recent years and move to more parental supervision of their children whenever possible or they may indicate more difficulties in securing licensed family day care providers.

In contrast to declines in the usage of family day-care providers, father care, while remaining at about the 15 percent level between 1977 and 1988, sharply increased to 20 percent by fall 1991 (figure 1). In the 1988 to 1991

[5]Amara Bachu, Current Population Reports, P20-470, Fertility of American Women: June 1992, table G.

Table C. **Primary Child Care Arrangements Used by Employed Mothers for Children Under 5 Years: Selected Periods, 1977 to 1991**

[Numbers in thousands]

Type of arrangement	Fall 1991	Fall 1990	Fall 1988	Fall 1987	Fall 1986	Winter 1985	June 1977[1]
Number of children	9,854	9,629	9,483	9,124	8,849	8,168	4,370
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Care in child's home	35.7	29.7	28.2	29.9	28.7	31.0	33.9
By father	20.0	16.5	15.1	15.3	14.5	15.7	14.4
By grandparent	7.2	5.2	5.7	5.1	5.2	5.7	(NA)
By other relative	3.2	2.9	2.2	3.3	3.4	3.7	[2]12.6
By nonrelative	5.4	5.0	5.3	6.2	5.5	5.9	7.0
Care in another home	31.0	35.1	36.8	35.6	40.7	37.0	40.7
By grandparent	8.6	9.1	8.2	8.7	10.2	10.2	(NA)
By relative	4.5	5.9	5.0	4.6	6.5	4.5	18.3
By nonrelative	17.9	20.1	23.6	22.3	24.0	22.3	22.4
Organized child care facilities	23.0	27.5	25.8	24.4	22.4	23.1	13.0
Day/group care center	15.8	20.6	16.6	16.1	14.9	14.0	(NA)
Nursery school/preschool	7.3	6.9	9.2	8.3	7.5	9.1	(NA)
School-based activity	0.5	0.1	0.2	(NA)	(NA)	(NA)	(NA)
Child cares for self	-	0.1	0.1	0.3	-	-	0.4
Mother cares for child at work[3]	8.7	6.4	7.6	8.9	7.4	8.1	11.4
Other arrangements[4]	1.1	1.1	1.3	1.0	0.8	0.8	0.6

- Represents zero.
NA Not available.

[1]Data only for the two youngest children under 5 years of age.
[2]Data for 1977 includes grandparents.
[3]Includes mothers working at home or away from home.
[4]Includes children in kindergarten/grade school.

Source: Tabulations derived from the June 1977 Current Population Survey; Current Population Reports, Series P70-9, table 1; Series P70-20, table 1, Part A and Part B; Series P70-30, table 1; and table 1 of this report.

period, father-provided child care increased for children whose fathers worked at full-time jobs, even if their fathers worked day shifts. Father care, however, was greatest among children whose fathers experienced long-term joblessness: 56 percent of preschoolers whose fathers were out of work for 4 or more months in 1991 were cared for by dad while mom was at work (table D).

Increases in father-provided child care were also noted for the children of unmarried women since 1988. Between 1977 and 1988, only 1 to 2 percent of preschoolers of unmarried women had their fathers care for them while their mothers were at work. In 1991, 7 percent were being cared for by their fathers.[6]

The proportion of children cared for by their mothers while at work also declined between 1977 and 1988 from 11.4 to 7.6 percent (table C). While no significant difference was noted in the proportion of children being cared for by working mothers between 1988 and 1991, in the short term, mother care was more frequent in 1991 than in 1990.

Although a large increase was noted in the proportion of children cared for in organized child care facilities (day/group care centers or nursery/preschools) between 1977 (13 percent) and the first SIPP survey taken in winter 1985 (23 percent), the proportion of preschoolers cared for in organized centers was no different in 1991 than it was in the 1985 survey. A short term decline in this type of care was noted between the 1990 and 1991 surveys.

CHILD CARE ARRANGEMENTS FOR GRADESCHOOL CHILDREN

Primary Arrangements

Most gradeschool-age children were in school while their mothers were at work (76 percent, table E). This does not mean that the remaining 24 percent were not enrolled in school; rather it implies that the majority of the hours that these mothers worked did not necessarily coincide with the hours of the day their children were in school (e.g., the mother worked evenings or on weekends when schools are closed).

Of the remaining 5 million gradeschool-age children not in kindergarten/gradeschool while their mothers worked, 2.3 million children were cared for in their own home. Over one-half of the total care in the children's homes was provided by the children's fathers. Another 638,000 children (3 percent) were involved in a school-based activity in 1991, representing a sizeable increase from 1988 when 346,000 children (1.7 percent) were in school-based activities.

[6]Martin O'Connell, Where's Papa? Fathers' Role in Child Care (Washington, D.C.: Population Reference Bureau, 1993), table A1.

Figure 1.
Preschoolers Using Father Care or Family Day Care Providers: 1977 to 1991
Percent

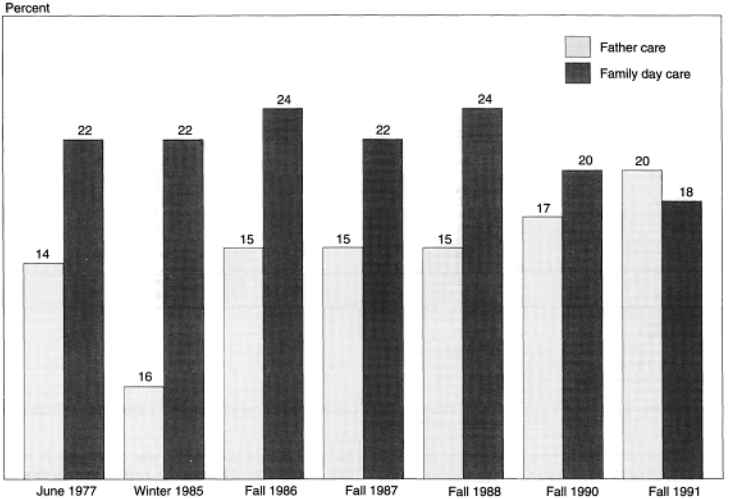


Table E. **Primary Child Care Arrangements Used by Employed Mothers for Children Under 15 Years: Fall 1991**

[Numbers in thousands]

Type of arrangement	All children		Childen under 5 years		Children 5 to 14 years	
	Number	Percent	Number	Percent	Number	Percent
Total	31,074	100.0	9,854	100.0	21,220	100.0
Care in child's home	5,785	18.6	3,522	35.7	2,263	10.7
By father	3,384	10.9	1,974	20.0	1,411	6.6
By grandparent	971	3.1	708	7.2	263	1.2
By other relative	709	2.3	313	3.2	396	1.9
By nonrelative	720	2.3	527	5.4	193	0.9
Care in another home	3,809	12.3	3,052	31.0	757	3.6
By grandparent	1,095	3.5	846	8.6	249	1.2
By other relative	645	2.1	443	4.5	203	1.0
By nonrelative	2,069	6.7	1,763	17.9	305	1.4
Organized child care facilities	2,673	8.6	2,268	23.0	405	1.9
Day/group care center	1,852	6.0	1,553	15.8	299	1.4
Nursery/preschool	822	2.6	716	7.3	106	0.5
School-based activity	689	2.2	52	0.5	638	3.0
Kindergarten/grade school	16,281	52.4	105	1.1	16,176	76.2
Child cares for self	566	1.8	-	-	566	2.7
Mother cares for child at work[1]	1,271	4.1	855	8.7	416	2.0

- Represents zero.

[1]Includes women working at home or away from home.

Variations in Arrangements by Marital Status of the Mother

Regardless of their mother's marital status, about three-fourths of gradeschool-age children were in school during the majority of hours their mothers were working (table 1). As was the case with the younger children, gradeschool children whose fathers live with them were much more likely to have their fathers as the primary source of child care (8.4 percent) than were gradeschoolers whose moms were lone parents (0.3 percent). To compensate for the absence of fathers in families with lone mothers, grandparents and other relatives were more likely to be the primary sources of child care for these children (10.2 percent) than for children of married mothers (3.8 percent), and were utilized at a level comparable to father care (8.4 percent) for children in married-couple families.

Gradeschool children whose mothers were not married were no more likely than children of married mothers to be cared for in organized care facilities. Self care, however, was a more common child care arrangement among children of lone mothers than those of married mothers (5.1 percent versus 2 percent). More limited economic resources and the absence of a husband in the household may present the lone parent with more difficulties in securing child care arrangements during all of her working hours.

Variations in Arrangements by Age of the Child

Just as the type of child care arrangements change as the child ages from infancy to preschool age, child care arrangements for gradeschool-age children shift dramatically after age 5 (table 3, upper panel). Although 85 percent of 5-year olds in October 1991 were enrolled in kindergarten or in elementary school, only 43 percent were in school most of the time their mothers were at work. Half-day kindergarten programs often do not cover a mother's working hours and this necessitates other child care arrangements. Among the 3 million 5-year olds enrolled in kindergarten in October 1991, only 42 percent were in school for a full day.[7]

Among older children 6 to 14 years of age, 81 percent were in school during the time their mothers were at work. After age 5, when virtually all children are enrolled in school for a full day, the percentage of children cared for primarily in either their own home or in another home declined sharply. Among 5-year olds, 32 percent were cared for in a home environment (either in the child's home or the provider's home) compared with 14 percent among 6- to 11-year olds and 10 percent among children 12 to 14 years of age. Use of organized child care facilities also rapidly diminished from 16 percent for 5-year olds to less than 1 percent among children 6 years and over. Self-care by children noticeably increased from 1 to 7 percent between younger and older gradeschool-age children.

After School Arrangements

The first panel of data in table 3 shows that approximately three-fourths (16.2 million) of gradeschool-age

[7]Robert Kominski and Andrea Adams, Current Population Reports, P20-469, School Enrollment—Social and Economic Characteristics of Students: October 1991, table 4.

children were in school for most of the time their mothers were at work. From earlier test surveys of this module conducted in Boston in 1983, interviewers reported that respondents frequently did not consider school attendance as a form of child care arrangement, even though many women were at work while their children were in school. In fact, some child care studies deliberately exclude a child's school attendance as a valid response to the question on child care arrangements and instead substitute the secondary form of child care that was mentioned.[8]

In an effort to permit comparisons of SIPP data with other studies that use this convention, the second panel of data in table 3 redistributes the child care arrangements in the first panel by excluding responses of kindergarten/gradeschool attendance and substituting the secondary arrangements used, if any, for these 16.2 million children while their mothers were at work. For example, after the addition of these secondary arrangements, the resulting number of children cared for at home was 4,966,000 (second panel, table 3) compared with the original estimate of 2,263,000 (first panel, table 3). The number of children 5 to 14 years of age who were reported to have cared for themselves while their mothers were working also increased from 566,000 to 1.6 million, reflecting the addition of 996,000 children using this secondary arrangement (table 4).

[8]Sandra L. Hofferth, April Brayfield, Sharon Deich, and Pamela Holcomb, National Child Care Survey, 1990 (Washington, D.C.: The Urban Institute Press, 1991).

The second panel in table 3 also reveals that 9.3 million children were reported not to have any additional child care arrangements after school, i.e., no secondary child care arrangements were made (second panel, table 3). Does this mean all of these children cared for themselves after school while their mothers were at work? The following section more closely examines the latchkey kid issue among gradeschool children using the parent's reports of self-care situations experienced by their children.

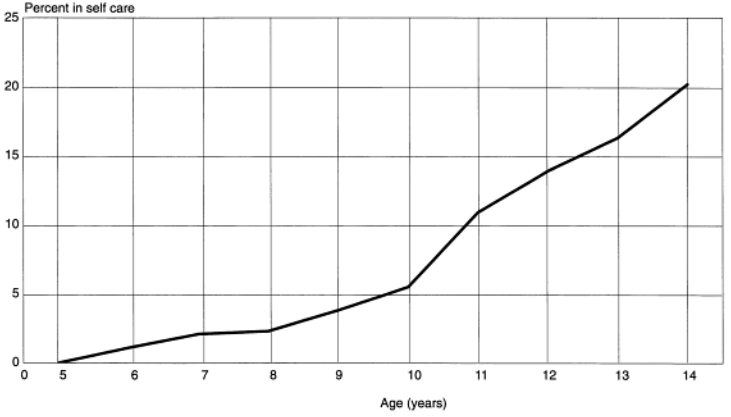
LATCHKEY KIDS 5 TO 14 YEARS OF AGE

Definitions

The phrase "latchkey kids" is generally used to describe children who are left alone or unsupervised during the day and return home to an empty house after school. In this survey, latchkey kids are those children aged 5 to 14 whose parents reported "child cares for self" as either the primary or secondary child care arrangement.[9] These estimates should be viewed as conservative for several reasons. First, the estimates do not include the children of women who are not in the labor force and who may spend some part of the day in unsupervised situations. Second, because only primary and secondary arrangements are recorded, it is possible that a child could be left in self care on a regular

[9]The number of latchkey kids under 5 is not estimated because none of the parents reported self care as either a primary or secondary arrangement for their preschool children.

Figure 2.
Reported Percentage of Latchkey Kids by Age: Fall 1991



basis but that this arrangement is not regarded as the primary or secondary arrangement. Third, unexpected situations may arise making it necessary to leave a child unattended occasionally or on a temporary basis which are not remembered or reported by the respondent.

Estimates of Latchkey Kids

In 1991, about 7.6 percent (1.6 million) of the 21.2 million children of employed women were reported to be in self care or to be unsupervised by an adult for some part of the time their mothers were working. Disaggregating these estimates by age (figure 2) shows that about 3.7 percent of 5- to 11-year olds and 16.8 percent of 12- to 14-year olds were latchkey kids (table 5). Results from an independent study conducted by the Urban Institute in 1990 yield comparable estimates: self care was reported by 6.4 percent of employed moms as either the primary or secondary arrangement for the youngest child, aged 5 to 12.[10] It should be noted that although these surveys provide some estimates of the number of children who are left unsupervised for some period of time while their mothers are working, the estimates may also be too low for the reasons mentioned above or for other methodological reasons.

Multivariate Analysis

What types of factors make it more likely that a child will be left unsupervised? Job characteristics determine the number of hours and the time of day during which a mother is unable to care for her kids. Family characteristics identify the other household members who can potentially care for the children. Geographic variables define the physical characteristics of the children's environment, e.g., city versus suburban lifestyles, while children's personal characteristics such as their age may set the limits of acceptability of leaving a child alone. Socioeconomic factors dictate the ability of families to pay for child care and may be related to the acceptability of leaving children unattended when the parents work. All of these factors may be related to the likelihood that a child will be unsupervised.

This section uses multivariate statistical techniques to simultaneously assess the influence these characteristics have on the likelihood that a child is a latchkey kid. The ability of children to care for themselves varies considerably by age; younger children are less likely to have developed the skills necessary to satisfy their basic needs and to protect themselves (table 5). To account for these variations, separate models are estimated for children in the age groups 5 to 11 and 12 to 14, approximately separating elementary- from middle-school-(junior high school)-age children.

[10]Hofferth, op cit., tables 2.18 and 2.27.

Table F. **Odds Ratio of a Child Being Reported in Self Care While the Mother is at Work, by Age of Child: Fall 1991**

Characteristics	Age of child	
	5 to 11 years	12 to 14 years
Job related characteristics:		
Employment (part-time)	...	...
Full-time	[1]4.222	0.929
Class of worker (employee)	...	...
Self-employed	0.406	[1]0.282
Shift work (non-day shift)	...	...
Day shift	1.570	[1]0.352
Employment/shift interaction	...	...
Full-time x day shift	0.575	[1]3.577
Family characteristics:		
Marital status (married)	...	...
Unmarried	1.835	[1]2.026
Other adult in the household (not present)	...	...
Present	0.785	0.788
Demographic characteristics:		
Child's age (years)	[1]1.727	[1]1.326
Child's gender (female)	...	...
Male	1.583	0.998
Race (other races)	...	...
Non-Hispanic White	0.715	1.624
Non-Hispanic Black	[2]0.170	0.768
Hispanic	0.495	0.872
Region (Midwest)	...	...
Northeast	[1]0.168	[1]0.448
South	[1]0.361	[1]0.377
West	0.619	[1]0.444
Metropolitan status (nonmetropolitan)	...	...
City	1.241	[1]2.334
Suburb	[1]2.407	[1]2.468
Mother's education (less than high school)	...	...
High school	2.379	0.755
College, 1 to 3 years	[1]3.560	0.968
College, 4 or more years	2.337	1.031
Economic Characteristics:		
Log of income (dollars)	0.853	1.195
Poverty status (not in poverty)	...	...
In poverty	1.733	1.529

Note: Individual categories listed in parentheses following factor headings indicate reference categories in the models.

... Reference category.
[1]Statistically significant at the 95-percent confidence level.
[2]Statistically significant at the 90-percent confidence level.

Children 5 to 11 Years of Age

Table F shows the relative odds of being a latchkey kid for children aged 5 to 11 and for those 12 to 14 years based on the multivariate analysis in table 6. When the odds ratios shown in the table are greater than 1, this indicates that children with the specified characteristic are more likely to be latchkey kids than the comparison group (the enumerated characteristic in parenthesis). Odds ratios less than 1 indicate that these children are less likely to be latchkey kids.

One of the most important factors is a mother's employment status, even after taking into account all of the other characteristics in the model. The relative odds reported in table F indicate that children of mothers who are employed full-time are about four times more likely to be latchkey kids than are children of mothers who are employed part-time. Other job characteristics (self employment and shift work) in the model are not statistically significant in influencing the likelihood that a child is left unsupervised. This suggests that the number of hours a mother works is more important than the other characteristics of the job in determining if a younger child is left unsupervised.

Among the demographic characteristics listed in table F, a child's age is one of the most important factors. The relative odds indicate that among 5- to 11-year olds, the likelihood of being a latchkey kid increases substantially with each year a child ages.

Children living in the Northeast and the South are less likely than children in the Midwest to be latchkey kids, even when taking into account the other factors in the model. The greater population density in the Northeast translates into more cars, more streets, and more crime. For these reasons, parents in the Northeast may not feel as comfortable leaving their kids alone as do parents in the Midwest.

Suburban children are about twice as likely as children living in nonmetropolitan areas to be latchkey kids. One possible explanation for this finding is that parents may feel more comfortable leaving their children home alone in suburban areas where there are neighbors close by who can informally supervise them or be called in on emergencies. Next door neighbors in nonmetropolitan and rural areas may be too far dispersed to provide similar informal supervision compared to suburban communities.

Among the socioeconomic characteristics in the model, the family's economic status does not appear to make a difference in whether or not a child is left in self care. Norms governing the acceptability of leaving a child alone appear to be similar across socioeconomic classes, once other factors are taken into account.

Children 12 to 14 Years of Age

The second column in table F shows the relative odds of being a latchkey kid for children aged 12 to 14. Children whose mothers are self-employed are only 28 percent as likely as children whose mothers are employees to be latchkey kids. One possible explanation for this finding is that self-employed mothers may have more flexibility than other mothers to arrange their schedules to allow for supervising their children. Previously, it was noted that self-employment status was not associated with self care among children aged 5 to 11. If parents feel obligated to care for younger children, they will be more likely to arrange for care no matter what kind of jobs they have and regardless of how difficult it is. The finding might also reflect the acceptability on the part of parents in leaving older children unsupervised.

The number of hours worked is only important in conjunction with the mother's work shift: children whose mothers work full-time day shifts are about 3.6 times more likely to be left unattended than are kids whose mothers work part-time (regardless of the shift), or kids whose mothers work full-time non-day shifts. If mothers work a long time period during the day for which their children require supervision, the children are more likely to be latchkey kids.

Older children with moms who work day shifts are less likely to be latchkey kids than those whose moms work non-day shifts. Since schools serve as supervisors during the day, children whose moms work day shifts have built-in care, while children whose moms work non-day shifts do not have school as a supervised care option. Perhaps this association is not found for the younger children because it is more unacceptable to leave younger kids alone, regardless of the mother's job shift.

Most of the demographic characteristics that are important in identifying latchkey kids among 5- to 11-year olds are also important for 12- to 14-year olds. Among 12- to 14-year olds, children are more likely to be reported as latchkey kids with increasing age within this group. The relationships between the likelihood of being a latchkey kid and regional and metropolitan characteristics for children 12 to 14 are similar to those found for children aged 5 to 11 years of age. In addition, older kids living in the West are also less likely to be latchkey kids than are children living in the Midwest, and children living in cities are more than twice as likely to be latchkey kids than are children residing in nonmetropolitan areas.

Children 12 to 14 whose mothers are unmarried are twice as likely as children whose mothers are married (spouse present) to be latchkey kids; however, there was no significant association between marital status and self care for children 5 to 11 years of age, although the direction of the relationship was the same and significant at the 89 percent confidence level for these younger children. In married couple families, the father may be available to care for the children when the mother is working, hence, these kids are less likely to go unsupervised.

Alternative Estimates of Latchkey Kids

Estimates of gradeschool-age latchkey kids derived from other sources range from 2 to 15 million children, with the higher estimates not generally supported by

national level statistical studies.[11] Large differences in estimates may result from the various techniques used to estimate the numbers of latchkey kids. In this study, for example, latchkey kid estimates derived from parental reports are admittedly conservative for various reasons previously mentioned. A different picture emerges when latchkey-kid estimates are indirectly derived using the mother's hours worked per week and the number of hours per week her children were in supervised child care arrangements.

Expecting that inaccuracies in reporting occur, using this alternative approach, only children for whom the average number of hours the mother works exceeds the number of reported hours of child care by 25 or more hours are estimated as latchkey kids. This estimate of latchkey kids also includes children reported to be in self care. The estimates derived in this manner indicate that 21.7 percent (4.6 million) of children aged 5 to 14 are "latchkey kids." The estimated number of latchkey kids aged 5 to 11 is about 3 million compared to the 554,000 children reported by their parents. For 12- to 14- year olds, the estimated number is about 1.6 million compared to a reported 1.1 million children.

Again, the time discrepancies of 25 hours or more used to estimate latchkey kids should not be literally interpreted to mean that a child is actually a latchkey kid for this many hours per week; rather, this measure gives us a very broad estimate of the number of kids who might possibly be unsupervised. In fact, this estimate using 25 hours as the cut-off level is very generous in itself as the average number of hours children 5 to 14 years of age were reported to be in self care by their mothers was 9.9 hours per week ($\pm$1.1 hours).

After school activities or travel between home, school and child care arrangements often occur in the presence of other children or adults, but not necessarily on a closely supervised or regular basis that would prompt a parent to interpret these periods as indicative of a child care arrangement. These time gaps may understandably be forgotten by some mothers during the interview or included by others as a part of the stated arrangement. Thus, we have shown that differences in the techniques used to estimate latchkey kids can and do result in very different estimates.

ORGANIZED CHILD CARE FACILITIES

The term organized child care facilities used in this report refers to day/group care centers and nursery/preschools. A day/group care center must be an incorporated business and licensed to care for children and may be run by a government agency, a business enterprise, or a religious or a free-standing charitable organization. A day care center may also be located in a private home. If a person not related to the child cares for children in his or her own home but does not claim to be a business enterprise or day care center, this arrangement is categorized as care provided by a "nonrelative in another home." Often, this provider is called a "family day care provider."

Nursery schools or preschools are used to describe formal organizations which provide an educational experience for children before they are old enough to enter kindergarten or grade school. These organizations include instruction as an important and integral phase of their program of child care. Head Start programs are included in this category. Some analysts suggest that the distinctions between day care centers and nursery schools are not very meaningful as day care centers often provide educational enrichment programs.[12] The reader, then, should understand that the distinctive labels used by respondents in this survey to describe child care arrangements may vary considerably depending on their subjective interpretation of the definition of child care. These labels may also differ because of regional differences in state licensing laws.

Characteristics of Users of Organized Child Care Facilities

In the fall of 1991, 16 percent (1,553,000) of the children under 5 years of age of employed women were in day/group care centers while another 7 percent (716,000) were enrolled in nursery/preschool programs (table B). Three- and four-year-old children constituted the majority (61 percent) of preschoolers using organized child care facilities; 8 percent were under 1 year of age and 31 percent were either 1 or 2 years of age.

Table 2 shows that the use of organized child-care arrangements was higher among women employed full-time (28 percent) than among women employed part-time (15 percent). These differences can partly be accounted for by the greater usage of parents as the primary child care providers among mothers who work part-time. Almost one-half (44 percent) of children whose mothers were working part-time were taken care of by their fathers (29 percent) or mothers (15 percent). In contrast, only about one-fifth (20 percent) of children of full-time working mothers secured parental child care services. Obviously, the longer time periods of child care needed by the children of full-time working mothers may pose more work schedule obstacles for parents wishing to care for their children than those encountered by families where the mother works only a few hours each day.

The economic status of the family is also related to the use of organized child care facilities. Table 2 shows that children of employed mothers whose family income

[11] U.S. Department of Education, Office of Policy and Planning, National Study of Before- and After-School Programs. Final Report to the Office of Policy and Planning, Contract No. LC89051001, 1993.

[12] Jerry West, Elvie Hausken, and Mary Collins, Profile of Preschool Children's Child Care and Early Education Program Participation, NCES 93-133 (National Center for Health Statistics, February, 1993).

exceeded $4,500 per month (over $54,000 per year) were more likely to be using organized child care facilities (34 percent) than were children living in those families having lower monthly incomes (about 20 percent each for children in families in the three lower income groups).

Also shown in table 2 is the utilization of organized child care facilities by the poverty level of the children's families (the average monthly poverty threshold for a family of four in 1991 from the March 1992 Current Population Survey was $1,160). Although the data indicate that children living in families below the poverty level apparently use organized child care facilities to a lesser extent than children living above the poverty level (18 and 24 percent, respectively), this difference is not significant. However, there are significant differences in other types of arrangements used by families below or above the poverty level. Children living in poverty in fall 1991 depended more on care in their own home provided by fathers (27 percent) and other relatives (7 percent) than did children who were not poor (19 percent and 3 percent, respectively). On the other hand, children living in families that were not poor relied more on care by family day care providers (19 percent) than did children living in poverty (11 percent).

Large differences in the use of organized child care facilities are also noted by the mother's educational attainment (table 2). Children whose mothers had completed 4 or more years of college used organized child care facilities twice as often (29 percent) as did children whose mothers failed to complete high school (15 percent). These variations in child care arrangements may at least partly reflect the financial abilities of families in different educational attainment categories to pay for this type of care.

Use of organized child care facilities varies across regions of the country. Children residing in the South were more likely to use organized child care facilities (29 percent) as their primary child care arrangement when compared to children residing in the Midwest or the Northeast, where about one-sixth of the children in these regions used organized child-care facilities. Note also that the use of nursery schools or preschools as a primary care arrangement was a relatively rare occurrence in the Midwest, accounting for only 3 percent of all arrangements.

CHILD CARE ARRANGEMENTS BY PARENTS' WORK SCHEDULES

Overview

The time period for which children are in need of care while their mothers are at work depends on the time of day the mother works and the number of hours she works. Of the 31 million children under 15 years of age of employed women, about 19 million (62 percent) had mothers who worked a day shift at their principal job (table 7A). Almost two-thirds of these 31 million children (20 million) also had mothers who worked full-time.

In instances where the parent had two or more jobs, shift work status and the categorization of full- and part-time jobs shown in this section of the report pertain only to the principal job of the child's parent (9 percent of employed mothers and employed married fathers with children under 15 years of age held two or more jobs). Categories of shift work in this report were derived from questions in the survey concerning the time- of-day work usually began and ended, and the regularity of the stated time schedule for the 4-month period prior to the survey (appendix F, items 1e, 1f, and 1g). Day shift is defined in this report as a work schedule where at least one-half of the hours worked by the respondent fell between 8:00 a.m. and 4:00 p.m. on a regular daytime basis. All other work schedules outside the 8:00 a.m. to 4:00 p.m. core period, including all evening/night, irregular, rotating, or split day/night shifts, were classified as non-day work shifts.

Using these definitions, 12.1 million mothers were classified as being regular daytime workers (table 8). In addition, table 8 also shows that there were another 1.9 million women who worked at least half of their hours in the 8:00 a.m. to 4:00 p.m. period, but described their schedule as not being a regular daytime shift. These women, and their children, were not included in the day-shift categories shown elsewhere in this report. An unknown proportion of these women may comprise women working flex-time schedules which primarily occur during the day but which have no regularly scheduled hours, which in itself, may affect their ability to secure regularly scheduled child care providers.[13]

Mothers' work schedules and work shifts varied by the age of their children. For children under age 5, about 57 percent had mothers who worked day shifts, while for children 5 to 14, about 65 percent had mothers who worked day shifts (percentages derived from table 7A). When examining the employment status of these children's mothers, 60 percent of preschoolers had mothers who worked full-time compared with 67 percent for 5- to 14-year olds. Large differences were noted in the work shifts of mothers by their full-time/part-time employment status. Seventy-six percent of children whose

[13]The estimate of the number of workers in day/non-day shifts derived from the SIPP shown in this report differ from estimates of other analysts based on data from the Current Population Survey (CPS) because of (1) seasonal differences between the two surveys, (2) the reference period that the shift is characterized for (4 months in SIPP v. last week in the CPS), (3) the wording of the questionnaire and editing procedures used to categorize the shift. Classifications based on SIPP data jointly utilize both the time of day and verbal descriptions of the shift to categorize regular day shift employees while data from the CPS are generally analyzed only using the verbal descriptions given by the respondents (Harriet B. Presser, "Can We Make Time for Children? The Economy, Work Schedules, and Child Care," Demography, Vol. 26, No. 4, pp. 523-543).

mothers were employed full-time worked a day shift at their principal job compared with only 37 percent of children whose mothers were employed part-time (table 7A).

Preschoolers' Arrangements by Mothers' Employment Status

Major differences are noted in the child care arrangements used by parents according to the time of the day the mother worked and according to the number of hours she worked (table 7A). Among preschoolers whose mothers worked a day shift at their principal job, 34 percent were cared for in another home compared to 27 percent of children whose mothers worked a non-day shift (figure 3).

Use of organized child care facilities was also more prevalent for children of women working day shifts, accounting for 30 percent of all child care arrangements. Since organized child care facilities often may not be available during evenings or on weekends, children of women working non-day shifts used these facilities less frequently, amounting to 14 percent of all child care arrangements.

Working non-day rather than day shifts may offer more opportunities for women with preschoolers to secure care for their children at home, especially by the children's fathers. Overall, 47 percent of the preschool-age children of women working non-day shifts were cared for in their own home compared to 27 percent of the children of women working day shifts. In-home child care of preschoolers by fathers accounted for 31 percent of all arrangements used by women working non-day shifts compared to only 12 percent used by women working day shifts (table 7A). In addition, child care provided for children by their mothers while at work was also more frequently mentioned among women working non-day shifts than day shifts.

The hourly demands for child care services placed upon families with mothers employed full-time cannot normally be met by other household members or relatives who have full-time jobs. Figure 3 shows that preschool children of mothers employed full-time were less likely to be cared for in the child's home (30 percent) than were children of mothers employed part-time (44 percent). On the other hand, full-time working mothers relied more heavily on child care in either someone else's home or in organized child care facilities (64 percent) than did part-time working mothers (41 percent).

Preschool children of part-time working mothers were more likely to be cared for by their mothers while at work (15 percent), than were children of mothers who worked fulltime (4 percent). In addition, child care provided by the father was also more frequent when the mother worked part-time (27 percent) than full-time (15 percent). More preschoolers with mothers who worked part- time had mothers who worked non-day schedules (66 percent) than did children with mothers who worked full-time (27 percent). This potentially enabled fathers who worked on a "9 to 5" schedule the opportunity to look after their children (table 7A).

Preschoolers' Arrangements by Fathers' Employment Status

Within married-couple families, there is the potential for the father to take care of the children while the mother is at work. However, a father's work schedule and work shift determine his availability for child care duties. Preschoolers whose fathers worked day shifts or full-time were less likely to be taken care of in their own homes than preschoolers whose fathers worked non-day shifts or part-time; however, the former groups were more likely to be cared for in organized facilities (figure 4).

Table D indicates that preschoolers were more likely to be cared for by their fathers while their mothers were at work if their fathers worked part-time or a non-day shift (29.7 percent each) than if they worked full-time (20.3 percent) or a day shift (17.3 percent). Note also that fathers provided one-half of the care for the approximately 400,000 preschoolers living in families where the father was not employed.

Gradeschoolers' Arrangements by Mothers' Employment Status

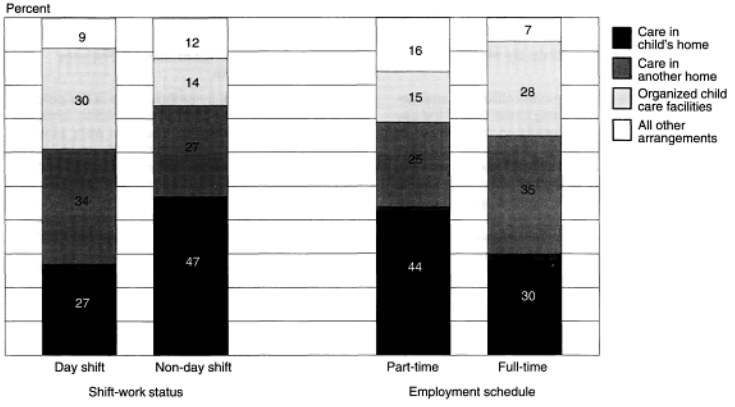
Among women with gradeschool-age children working traditional day shifts, 83 percent of the children were in school most of the time their mothers were working (table 7A). Even among women working non-day shifts, 65 percent of their children were reported to be in school most of the time their mothers were at work. The second most frequently used arrangement for gradeschool-age children of non-day shift workers was care provided in the child's home (20 percent). Two-thirds of the children cared for within the home were cared for by their fathers.

School was the primary source of child care for the majority of gradeschool-age children: 79 percent of children of mothers working full-time and 71 percent of children of mothers working part-time were in school the majority of time their mothers were working. More children of mothers who were employed part-time were cared for in their own homes (16 percent) than were children of mothers who were employed full-time (8 percent). Fathers provided one-half of the in-home care among children of full-time working mothers and about three-fourths of the in-home care among children of part-time working mothers.

Gradeschoolers' Arrangements by Fathers' Employment Status

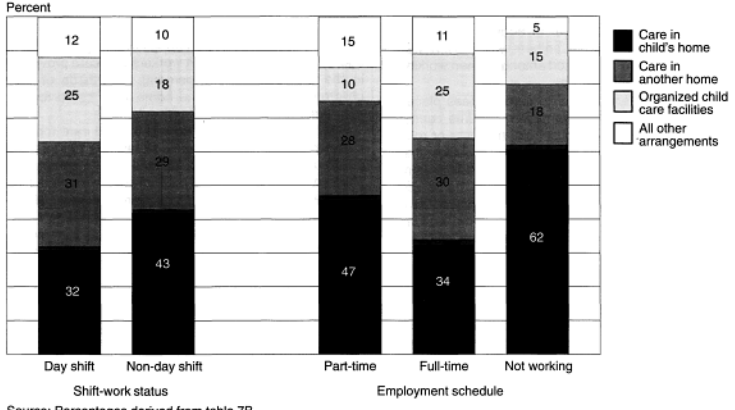
Regardless of their fathers' employment status, about three-fourths of gradeschool-age children were in school for the majority of the time their mothers were at work.

Figure 3.
Care for Children Under 5 Years, by Employment Status of Mother: Fall 1991



Source: Percentages derived from table 7A.

Figure 4.
Care for Children Under 5 Years, by Employment Status of Father: Fall 1991



Source: Percentages derived from table 7B.

Employed fathers were the primary source of care for approximately another 8 percent of gradeschool-age children, regardless of the father's work schedule or shift (table 7B). Of the approximately 900,000 gradeschool-age children living in married-couple families with unemployed fathers (data not shown in table 7B), 18 percent had their fathers as their principal care providers during their mothers' working hours compared with 8 percent for the 16 million gradeschoolers living with employed fathers.

Child Care Arrangements Used by Dual-Employed Married Couples

Families often encounter difficulties in securing child care arrangements for their children if both parents are working the same hours during the day. In the fall of 1991, there were 13.9 million families with children under 15 years of age where both mother and father were employed (table G). Almost one-half (6.5 million) had both the husband and wife working day shifts with the majority of these couples (5 million) working full-time schedules during the day. Overall, 36 percent of all dual-employed married-couple families with children under 15 had both the husband and wife working full-time in day shifts.

How do families who work daytime versus nighttime schedules cope with the problems of securing child care arrangements when both parents are at work? In circumstances where both parents work during the day, only 21 percent of the 3.2 million preschoolers were cared for in their own home (table 9, column 2). In contrast, if both parents worked non-day shifts (column 5), 44 percent of these 1.2 million children were cared for in their own home. Note that parents who both work non-day shifts do not necessarily work the same hours. Among families where the parents work "split-shifts" (i.e., where one parent works a day shift and the other a non-day shift, columns 3 and 4), the proportion of children cared for in their own home (46 percent) is greater than when both parents work a day shift but not different from families where both parents work non-day shifts. It is likely that families working non-traditional hours take advantage of the potential of having one parent at home to provide care for their child while the other is working.

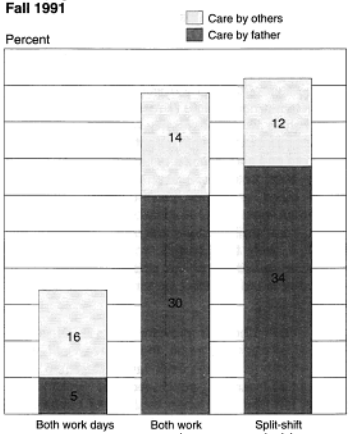
The father is the main provider of the in-home child care for preschoolers when the mother is at work, except when both parents work days (figure 5). A study by Harriet Presser also concluded that "Reliance on spouses for child care when dual-earner couples are

Table G. **Number of Dual-Employed Married Couples with Children Under 15 Years, by Type of Work Shift of Principal Job: Fall 1991**

[Numbers in thousands]

Type of work shift of mother	Total	Type of work shift of father			
		Employed full-time		Employed part-time	
		Day shift	Not a day shift	Day shift	Not a day shift
All children					
Total	13,880	9,709	2,931	212	1,028
Employed full-time	8,756	6,301	1,900	119	437
Day shift	6,820	5,014	1,400	90	317
Not a day shift	1,936	1,287	500	29	120
Employed part-time	5,124	3,408	1,031	94	592
Day shift	1,956	1,392	391	48	126
Not a day shift	3,168	2,016	640	46	466
Youngest child under 5 years					
Total	5,990	4,025	1,359	91	515
Employed full-time	3,646	2,520	845	64	218
Day shift	2,761	1,986	583	51	142
Not a day shift	885	534	262	13	76
Employed part-time	2,344	1,505	515	27	297
Day shift	862	577	218	12	55
Not a day shift	1,482	928	297	15	243
Youngest child 5 to 14 years					
Total	7,890	5,685	1,572	121	513
Employed full-time	5,111	3,782	1,056	55	219
Day shift	4,059	3,028	817	39	175
Not a day shift	1,052	753	238	16	44
Employed part-time	2,779	1,903	516	66	294
Day shift	1,094	815	172	36	71
Not a day shift	1,685	1,088	344	31	223

Figure 5.
Children Under 5 Cared for in Their Own Home, by Parents' Shift-Work Status: Fall 1991



Source: Table 9.

employed is much higher when respondents work non-days rather than days."[14]

Irrespective of the shift work or employment status (full/part-time) of the children's parents, at least two-thirds of the gradeschool-age children were in school most of the time their mothers were working. In-home care for these older children, however, ranged from 5 to 6 percent when mother worked a day shift to 17 percent and over when the mother worked a non-day shift, regardless of the father's work schedule (table 9).

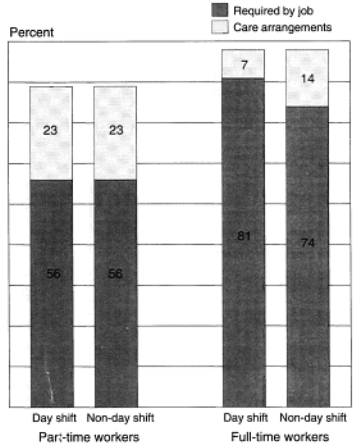
Reasons for Choosing Work Shift

As shown, child care arrangements differ according to the work shifts and schedules of mothers and fathers. But do mothers choose their shifts and schedules in order to make better child care arrangements, or do job requirements more often determine work schedules? Overall, 71 percent of women answered that job requirements determined the type of shift they worked (table H). Another 14 percent mentioned that the main reason for choosing the shift they worked was to secure better child care arrangements for their children, while 4 percent said that seeking better arrangements for the care of other members of their family was their most important reason for choosing that work shift.

Only 56 percent of women working part-time said that their job requirements determined their work shifts compared with 79 percent of women working full-time. However, child care issues played a more important role in choosing the type of work schedule among part-time workers. Twenty-three percent of women working part-time cited the need for better child care arrangements as the main reason for choosing their work shift compared to 9 percent of women working full-time.

Among part-time workers, reasons for choosing shift work did not differ depending on whether the mother worked a day shift or a non-day shift (figure 6). In contrast, given that a mother was employed full-time, differences were noted in the reasons cited for choosing a particular work shift. For example, among women who worked full-time, day shift workers were more likely to say that there was no flexibility in choosing their work hours (i.e., it was required by the job). On the other hand, non-day shift workers were more likely than day shift workers to cite child care arrangements as the principal reason they chose their particular shift.

Figure 6.
Reason Mother Chose Work Shift of Principal Job: Fall 1991



Source: Table H.

[14]Harriet B. Presser, "Shift Work and Child Care Among Young Dual-Earner American Parents," Journal of Marriage and the Family, Vol. 50 (February, 1988), pp. 133-148.

Table H. **Main Reason Given by Employed Mothers with Children Under 15 Years of Age for Choosing Type of Work Shift of Principal Job: Fall 1991**

[Percent distribution. Numbers in thousands]

Employment status, type of shift, and age of youngest child	Number	Reasons for choosing work shift				
		Total	Required by job	Child care arrangements	Other family care arrangements	All other reasons
All children						
Total	19,260	100.0	71.3	13.5	4.4	10.9
Employed full-time	12,687	100.0	79.3	8.5	3.3	8.9
Day shift	9,657	100.0	81.0	6.7	3.3	9.0
Not a day shift	3,029	100.0	73.9	14.3	3.2	8.7
Employed part-time	6,573	100.0	55.8	23.0	6.4	14.8
Day shift	2,429	100.0	55.5	23.4	8.2	13.0
Not a day shift	4,144	100.0	55.9	22.9	5.4	15.8
Youngest child under 5 years						
Total	7,982	100.0	67.6	18.3	3.4	10.7
Employed full-time	4,974	100.0	79.5	10.5	2.5	7.5
Day shift	3,653	100.0	82.5	7.9	2.6	7.0
Not a day shift	1,321	100.0	71.3	17.6	2.3	8.8
Employed part-time	3,008	100.0	48.0	31.1	5.0	16.0
Day shift	1,052	100.0	51.2	29.1	5.3	14.4
Not a day shift	1,956	100.0	46.3	32.2	4.8	16.8
Youngest child 5 to 14 years						
Total	11,278	100.0	73.8	10.1	5.0	11.1
Employed full-time	7,713	100.0	79.2	7.2	3.8	9.9
Day shift	6,005	100.0	80.0	5.9	3.8	10.2
Not a day shift	1,709	100.0	75.7	11.7	3.9	8.6
Employed part-time	3,565	100.0	62.3	16.2	7.6	13.8
Day shift	1,377	100.0	58.8	19.0	10.3	11.9
Not a day shift	2,188	100.0	64.6	14.5	5.9	14.9

The need for better child care arrangements was more important in choosing the type of work shift among women with preschool-age children (18 percent) than among women with gradeschool-age children (10 percent). Women with preschoolers who worked part-time in a non-day shift were particularly concerned with the need for better child care arrangements, as 32 percent cited this as their main reason for choosing their particular type of work shift (table H).

The data indicate that child care arrangements during non-day hours were needed by approximately 7.2 million employed women with children under 15 years of age in the fall of 1991. About 1.4 million of them stated that the need for better child care arrangements was the primary reason for choosing this type of work shift. This analysis suggests that child care issues play a significant role in the choice of daily work schedules of women, particularly among women who work part-time.

CHANGES IN CHILD CARE ARRANGEMENTS

This report so far has examined how families care for their children on a daily basis while the mother is at work and the extent to which child care arrangements are a factor in determining a mother's work schedule. Now we will describe the stability of different child care arrangements and which arrangements change most often.

Two changes occurred between the 1988 and 1991 SIPP survey questions regarding changes in child care arrangements which make any comparisons between the two years problematic. In the 1988 survey, data were analyzed for women with only one child. In 1991, questions regarding changes in child care were asked individually for the three youngest children. In addition, the 1988 survey questions referred to changes in child care arrangements occurring 4 months prior to the survey date. In 1991, this question referred to a period of 12 months before the survey.

Frequency of Change

Of the 31.1 million children under 15 years of age of employed mothers, 7.1 million, or about 23 percent, had changed their child care arrangements in the 12 months prior to their interview (table I). About one-fourth of the children aged 5 to 14 and 18 percent of the children under age 5 were reported as having changed arrangements at least once during the 12 months prior to their interview.

Table I. **Reasons for Changes in Child Care Arrangements: Fall 1991**

[Numbers in thousands. Data shown are limited to children who experienced a change in arrangement in the last 12 months. Percentages total to more than 100.0 because of multiple answers]

Reasons for changes in child arrangements	Total	Age of children		Mother employed		Type of shift	
		Less than 5 years	5 to 14 years	Full-time	Part-time	Day shift	Not a day shift
Number of children	31,074	9,854	21,220	20,088	10,986	19,346	11,729
Number making a change	7,062	1,728	5,334	4,939	2,123	4,723	2,339
Percent making a change	22.7	17.5	25.1	24.6	19.3	24.4	19.9
Reasons for change (percent)[1]							
Child's school schedule	51.4	11.5	64.4	53.6	46.4	55.5	43.3
Mother's work schedule	5.9	11.3	4.2	5.3	7.5	4.5	8.8
Mother's school schedule	3.5	2.5	3.8	3.6	3.3	3.9	2.6
Cost of care	4.5	8.4	3.2	4.3	5.0	4.6	4.2
Availability of provider	7.7	15.8	5.1	6.7	10.1	8.0	7.2
Reliability of provider	2.4	4.8	1.6	2.9	1.1	2.2	2.7
Quality of care	1.7	4.6	0.8	2.1	0.9	1.7	1.9
Location of provider	3.4	7.3	2.2	3.2	3.9	3.8	2.7
Better/less expensive/more convenient provider	4.7	8.6	3.5	4.3	5.7	4.5	5.2
Never had a regular provider	1.3	2.2	1.0	1.0	2.1	1.7	0.6
Child outgrew arrangement	2.0	1.1	2.3	2.4	1.2	1.9	2.2
Arrangement no longer available	6.4	16.7	3.0	7.0	4.8	4.8	9.5
All other reasons	25.0	34.7	21.8	24.8	25.3	23.1	28.7

[1] Percentages based on number reporting a change.

Children of mothers who were employed full-time were more likely to have changed child care arrangements in the 12 months prior to the survey (25 percent) than were children of mothers employed part-time (19 percent). One possible explanation for this finding has to do with the type of child care arrangements women use. Children whose mothers work part-time are more likely to be cared for by relatives in the child's home. Since this arrangement is likely to be more stable than care provided outside the child's home, fewer of these children change arrangements. The higher frequency of changes among children whose mothers work full-time also probably reflects the greater numbers of hours for which care is required.

It should be noted that the frequency of change reported in the survey may be different if the questions were asked only for the school year when disruptions in arrangements due to school closings in the summer would be absent. The retrospective 12-month period in this report which covers the frequency of change questions, however, includes a time span when schools were closed over the summer and then reopened in the fall.

Reasons for Change

The two main reasons for changing child care arrangements among mothers of preschool children were the availability of the arrangement and the availability of the provider. Together, these two responses accounted for about one-third of the reasons children under five experienced a change in their child care arrangements.

The most frequent response given by mothers of gradeschool-age children who experienced a change was the child's school schedule (64 percent). Changes in either the mother's employment or school schedule accounted for 8 percent of changes in child care arrangements among children 5 to 14 years of age.

Surprisingly, concerns for child care costs were rather low on the list of reasons for changing child care arrangements. Among preschoolers, this reason accounted for about 8 percent of the changes, while for gradeschool-aged kids, it accounted for only 3 percent of the changes.

FAMILY EXPENDITURES ON CHILD CARE

Overview

Weekly expenses for child care arrangements shown in this section refer to the overall expenditures on child care that families make for all of their children under 15 years of age.[15] The questions on child-care expenses were asked of parents only if any of their three youngest children under age 15 were cared for by a grandparent, other relative or a nonrelative, or if any children were placed in day/group care centers, nursery/preschools or before/after school-based activities. Excluded were

[15] Child care costs were also asked of women enrolled in school, unemployed women, and male guardians of children. The child care expenditures for these groups were very small relative to the total expenses for child care for families where the mother was employed. Unless otherwise specified, child care costs shown in this report refer only to families where the mother was employed.

women who used only immediate family members (i.e., child's father or siblings) or only kindergartens/gradeschools, or if the child cared for himself or herself. Therefore, cash transfers to immediate family members or payments for usual schooling were not included in child care costs.

In SIPP surveys taken before 1988, only one question was asked to obtain information on the aggregate cost of child care for all children in the household. However, in the 1988 and 1991 surveys, specific questions on child care costs were asked individually for each child regarding both primary and secondary arrangements. Comparisons of 1991 child care costs with cost estimates taken from surveys prior to 1988 should be made with these differences in survey design in mind.

Of the 19.2 million employed women with children under 15 years of age in fall 1991, 35 percent (6.6 million) reported that they made cash (money) payments for child care services for at least one of their children (table J), down from 40 percent in 1988. Average child care costs of $63 per week per family were paid by the families of employed women who reported such payments, amounting to an estimated annual expenditure of 21.8 billion dollars.[16] The average monthly family income of women who paid for child care services was $3,838 of which $1,708 (± $60) of this amount was their own personal income. Child care payments represented about 7.1 percent of their total family income, not different from the 1988 estimate of 6.8 percent.

Figure 7 shows weekly child care costs estimated from six SIPP surveys conducted between winter 1985 and fall 1991 in constant 1991 dollars (dollars adjusted for inflation). Child care costs measured in 1991 constant dollars increased from $52 in the winter of 1985 to $63 in the fall of 1991. Although family income data for the 1985 survey are not available, data for the 1986-91 period indicate that the proportion of one's family income spent on child care increased from 6.3 to 7.1 percent.

Poverty and Income

In 1991, about 9 percent of employed women (1.6 million) with children under 15 years of age were living in poverty (table J). Twenty-four percent of women living in poverty reported paying for child care services compared to 36 percent of women living above the poverty level. Women in poverty paid an average of $60 per week, not significantly different from women who were living in households above poverty level who paid an average of $64 per week (figure 8). However, among women making child care payments, those in poverty spent a considerably higher proportion of their monthly family income on child care, 27 percent, compared to 7 percent among women living in families that were not in poverty (figure 9). The estimated average monthly family income of the women in the survey who were living in poverty and paying for child care was $971 per month compared to $4,021 per month for women living in families above the poverty line (table 10).

[16] The total cost of child care for 1991 for all families, including those with mothers either enrolled in school or unemployed and families with male guardians of children amounted to $23.6 billion (derived from table 10).

Table J. **Weekly Child Care Costs Paid by Families with Employed Mothers: Selected Periods, 1984 to 1991**

[Numbers in thousands. Excludes persons with no report of family income in last 4 months]

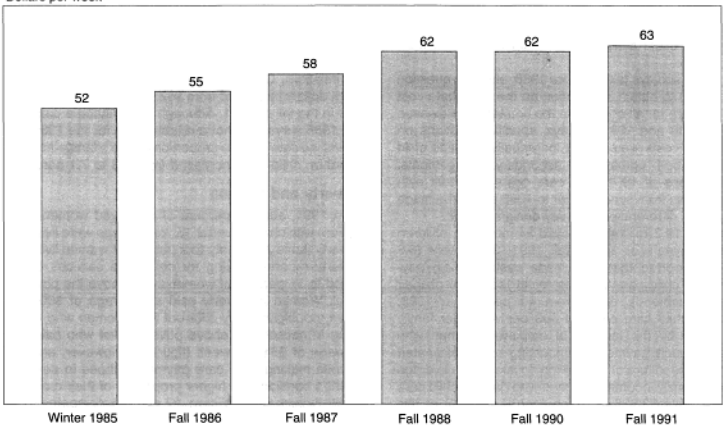
Period	Number of mothers	Making payments		Weekly child care expenses				Income spent on child care per month	
				Current dollars		Constant dollars			
		Number	Percent	Mean[1]	Standard error	Mean[1]	Standard error	Percent[2]	Standard error
Sept. to Dec. 1991	19,180	6,616	34.5	63.3	2.4	63.3	2.4	7.1	0.3
Monthly family income:									
Less than $1,500	2,914	926	31.8	51.1	4.8	51.1	4.8	21.7	5.2
$1,500 to $2,999	5,885	1,871	31.8	57.9	5.5	57.9	5.5	11.0	3.8
$3,000 to $4,499	4,994	1,842	36.9	62.2	3.9	62.2	3.9	7.3	1.7
$4,500 and over	5,387	1,977	36.7	75.1	4.5	75.1	4.5	4.8	0.2
Below poverty level	1,642	396	24.1	59.5	9.8	59.5	9.8	26.6	3.0
Above poverty level	17,537	6,220	35.5	63.5	2.5	63.5	2.5	6.9	0.3
Sept. to Dec. 1990	18,938	7,202	38.0	59.7	1.3	61.5	1.3	6.9	0.2
Sept. to Dec. 1988	18,843	7,520	39.9	54.0	1.2	61.8	1.4	6.8	0.2
Sept. to Nov. 1987	18,501	6,168	33.3	48.5	1.8	57.9	2.1	6.6	0.3
Sept. to Nov. 1986	18,305	5,742	31.4	44.3	1.4	55.2	1.7	6.3	0.3
Dec. 1984 to March 1985	15,706	5,299	33.7	40.3	1.1	52.4	1.4	NA	NA

Note: Constant dollars are in 1991 dollars. NA Not available.

[1] Mean expenditures per week among persons making child care payments.

[2] Percent is ratio of average monthly child care payments (prorated from weekly averages) to the average monthly income. Note: Constant dollars are in 1991 dollars.

Figure 7.
Average Weekly Cost of Child Care for Selected Years: 1985 to 1991
Dollars per week[1]

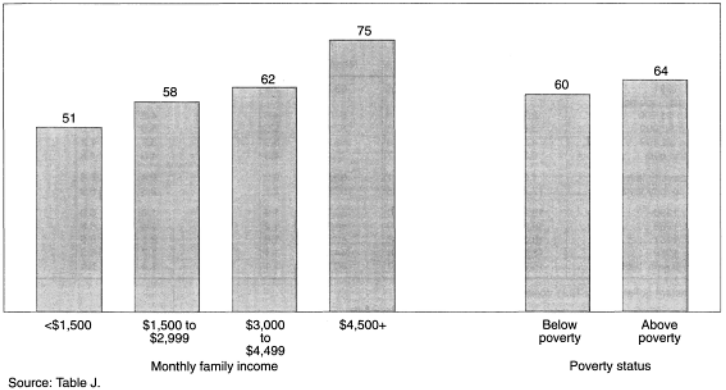


[1]In constant 1991 dollars.

Source: Table J.

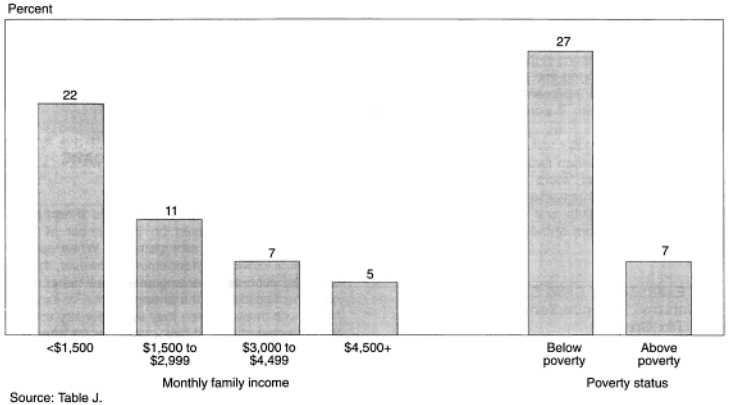
Figure 8.
Average Weekly Cost of Child Care: Fall 1991

Dollars per week



Source: Table J.

Figure 9.
Percentage of Monthly Family Income Spent on Child Care: Fall 1991



Source: Table J.

It is important to note that although no statistical differences were found in child care costs among families below and above the poverty level in 1991, the previous SIPP child care survey in 1988 indicated that child care expenses were about $13 more per week among families above the poverty level. It would appear that while the majority of poor families must secure cost free child care to a greater extent than families above the poverty line (only 24 percent of poor families pay for care versus 36 percent of families above poverty, table J), those poor families that do pay for child care may compete against more financially able families for child care services, and hence pay competitive prices for these services.

Women living in families with low monthly incomes also spent a major portion of their income on child care. Among women making child care payments, those in families whose monthly income was less than $1,500 per month spent 22 percent of their income on child care (table J). At the other end of the income scale, families whose income was $4,500 and over per month spent only 5 percent of their family income on child care services. These disparities in child care expenditures as a percent of family income and poverty status were also noted in a report based on the 1990 National Child Care Survey.[17]

[17]Hofferth, et al., op cit.

Age of Children

For employed women in families with preschool-age children, 60 percent made cash payments for the care of their children in fall 1991, compared to only 17 percent for women whose youngest child was 5 years of age and over (table 10). Women with preschoolers also paid more per week ($72) and spent a higher proportion of their monthly family income on child care (8 percent) than did women whose youngest child was 5 to 14 years old ($40 per week for child care expenses and 4 percent of family income on child care).

Women who made child care payments and who had three or more children paid an average of $24 more per week for child care than did women who had only one child. Families with three or more children spent 9 percent of their monthly family income on child care compared with 7 percent for families with only one child in the household. It is likely that larger families had more older children of school age for which child care costs are less; larger families, then, do not necessarily result in higher or even comparable average child care costs per child. Data in table 10 also show that while married women spent more per week on child care ($66) than did unmarried women ($55), a smaller proportion of their monthly family income was spent on child care services (7 percent) than that of unmarried women (11 percent) as they are likely to have more than one earner in the family.

Region and Metropolitan Residence

Table 10 shows that child care costs were about $32 per week higher in the Northeast ($86) than in the South ($54). This pattern of regional difference was also found in the 1986, 1987 and 1988 SIPP surveys[18] and in part reflects regional variations in the cost of living. Families in the Northeast reported that their child care expenditures made up about 9 percent of their monthly family income compared with 7 percent for families in the South.

Families in metropolitan areas pay more per week for their child care ($68) than families in non-metropolitan areas ($50). However, there is no difference in the percent of family income paid out for child care services. Families in metropolitan and non-metropolitan areas devote about 7 percent of their family income to child care.

SIPP Estimates of Child Care Costs and Internal Revenue Service Child Care Tax Credits

The Internal Revenue Service (IRS) in 1991 approved as tax credits child care costs for dependent children under 13 years of age of taxpayers while they were working or looking for work.[19] Qualified expenses include amounts paid for household services and care of the taxpayer's dependent child while he/she was at work or looking for work. Expenditures for child care related services outside of the child's home also qualified for the child care credit.

The maximum amount of these expenses to which the credit could be applied was the lesser of earned income or $2,400 for one qualifying child and the lesser of earned income or $4,800 for two or more children. The credit varied between 30 percent of these expenses for taxpayers with an adjusted gross income of $10,000 or less and 20 percent for taxpayers with an adjusted gross income of $28,000 or more. There are many more restrictions in claiming child care credits (e.g., exclusion of child care expenses while taxpayer is off from work because of illness or cost of sending child to an overnight camp) which may underestimate the total amount of money actually paid for child care.

The latest available information for tax year 1991 from the IRS indicates that $2.5 billion of tax credits were filed on 5.9 million individual tax returns.[20] Data from the SIPP for fall 1991 show that 6.6 million employed women had at least one child under 15 years old and paid an estimated $21.8 billion for child care arrangements in 1991 (table 10). The point of this comparison is not to show any similarity in the numbers because they are essentially measuring two different things: expenditures versus allowable deductions. Rather, the SIPP data indicate that the current financial burden of child care on American families greatly exceeds the amount of child care tax credits allowable on income tax returns.

COSTS OF INDIVIDUAL CHILD CARE ARRANGEMENTS

The data on child care expenditures shown so far in this report have focused on the number of families paying for child care arrangements. When estimating the cost of individual arrangements, however, the unit of analysis becomes the arrangement itself rather than the number of children in the arrangement. For example, a family with three children may use a nursery school for the youngest child and pay a neighbor for after school care for the two older children. In this case there are only two types of paid arrangements (day care center and a neighbor) even though there are three children using the arrangements. In this example, the arrangement used only for the youngest child will be described as a "separate arrangement" while the arrangement used for the two older children by the neighbor will be described as a "shared arrangement."

Separate and Shared Arrangements

In fall 1991, 31.1 million children under 15 years of age of employed women used 42 million child care arrangements or 1.4 arrangements for each child. Of these 42 million arrangements, 33 million required no cash payments as over one-half of these were composed of kindergarten/grade school arrangements (table 11). Cash payments were required 90 percent of the time when family day care providers or organized child care arrangements were used. Cash payments for arrangements were less frequently made when either grandparents (19 percent) or other relatives (39 percent) were used.

Of the 9.4 million arrangements for which cash payments were made, 6.2 million children were in separate arrangements and another 3.2 million children were in shared arrangements for two or more siblings (table 11). Shared arrangements were more frequently used when care was provided for children in their own home (59 percent) than in another home (33 percent) or in organized child care facilities (26 percent). Shared arrangements were more frequently used when the youngest sibling was of gradeschool age (43 percent) than preschool age (29 percent).

[18] O'Connell and Bachu, Current Population Reports, P70-30, op. cit., p. 17.

[19] More stringent provisions in the tax forms were put in force in 1989 which require the claimant to list the child care provider's name, address, and social security or taxpayer identification number.

[20] Internal Revenue Service, "Individual Income Tax Returns, 1991," Statistics of the Income Division of the Internal Revenue Service, Publication No. 1304 (September 1993).

Table K. **Hourly Child Care Costs for Children of Employed Mothers by Hours of Child Care Used Per Week: Fall 1991**

[Numbers of arrangements in thousands]

Age of child and hours used per week	Payments made separately			Payments shared with others		
	Number of arrangements	Cost per hour		Number of arrangements	Cost per hour	
		Mean[1]	Standard error		Mean[1]	Standard error
All children						
Total	6,188	$ 4.17	$ 0.34	1,443	$ 2.48	$ 0.34
Less than 10 hours	1,602	10.16	1.15	117	(B)	(B)
10 or more hours	4,586	2.07	0.08	1,326	1.97	0.24
Children under 5 years[2]						
Total	4,153	$ 4.09	$ 0.43	989	$ 2.03	$ 0.27
Less than 10 hours	891	11.53	1.69	50	(B)	(B)
10 or more hours	3,262	2.06	0.09	939	1.88	0.22
Children 5 to 14 years[2]						
Total	2,034	$ 4.32	$ 0.54	454	$ 3.47	$ 0.89
Less than 10 hours	711	8.44	1.44	67	(B)	(B)
10 or more hours	1,324	2.11	0.10	387	2.17	0.66

B Base less than 200,000.

[1] Average individual costs per hour per child for each arrangement.
[2] For shared arrangements, age refers to age of youngest child in arrangement.

For purposes of computing child care costs, the 3.2 million children in shared arrangements shown in table 11 were further grouped to reflect the 1.4 million actual payments made for these arrangements (table K). On average, 2.2 children shared each paid arrangement. Child care costs per child for the 6.2 million separately paid arrangements were $4.17 per hour compared with $2.48 for the 1.4 million arrangement groups where child care services were shared.

Child Care Costs for Separate Arrangements

Among families making separate payments for child care arrangements (table K), those using 10 or more hours of child care per week made much lower hourly payments ($2.07) than those using less than 10 hours of child care ($10.16). On average, families using child care for less than 10 hours a week used these arrangements for little more than one hour per weekday (5.5 hours per week).[21]

Several explanations can account for the unusually high hourly estimate of child care expenses for women who use arrangements for less than 10 hours per week. Women who have a failure in their child care arrangement may need to pay a higher premium for short term emergency back-up care. In addition, nonrelative child care providers who may be willing to work for only a few hours per week may demand higher pay per hour to meet some minimum expenses or wage requirements on their part. Child care centers may also structure their pricing differently for intermittent users of their facilities as compared to families who contract for long term enrollment of their child. In addition, after school activities and music or dance classes which occur for just a few hours per week and are oftentimes priced as luxury services, are also considered to be a type of child care arrangement. These examples indicate why families who use child care services for less than 10 hours a week pay unusually high hourly child care costs, which are atypical of persons using regular arrangements most of the day throughout the week.

Child Care Costs for Shared Arrangements

In an attempt to estimate typical child care costs of families who use separate and shared arrangements for more than a couple of hours a day, tables 12 and 13 in this report show the hourly costs of child care for families who used arrangements for at least 10 hours per week. In 1991, these criteria were met by about 4.6 million arrangements for which payments were made separately and for 1.3 million arrangement groups for which payments were shared, down substantially from 5

[21] Data discussed in this section for detailed child care arrangements used less than 10 hours per week are from unpublished tables not shown in this report.

million separate arrangements and 1.9 million shared arrangements reported in 1988 (table K).[22]

Child care costs for all children under 15 using separately paid arrangements were estimated at $2.07 per hour, not significantly different from hourly costs ($1.97) when two or more children shared the same provider (table K).[23] For children under 5 years of age, child care costs were $2.06 an hour when payments were made separately, not significantly different from an estimated payment of $1.88 an hour when arrangements were shared. A reduction in hourly costs also did not occur among older children when arrangements were shared. Parents of older children who shared the same provider paid $2.17 per child per hour compared with $2.11 per hour paid by parents of children not sharing arrangements.

Data in tables 12 and 13 show that reductions in hourly child care costs occurred when the child's relatives provided the care. When payments were made separately, care by relatives cost $1.88 an hour for each child, compared to $1.09 per hour when shared payments were made. No reductions in hourly costs were noted when payments were shared for care in organized child care facilities or when nonrelatives were the child care providers.

The hourly costs of child care by a nonrelative, when payments were made separately, were about 80 cents more when the care provider came to the child's home than when the child was brought to the provider's home. This difference may result from the extra transportation costs and the general inconvenience experienced by the provider. However, this larger payment may also reflect the fact that the provider in the child's home may be asked to do other household chores in addition to baby sitting.

[22]Data for 1988 on separate and shared arrangements are from O'Connell and Bachu, Current Population Reports, P70-30, op. cit., table K.

[23]When arrangements were shared, the total amount of time spent by all children was used as the denominator in computing the hourly costs of child care for shared arrangements.

NOTE ON ESTIMATES

Estimates of primary and secondary child care arrangements used by employed mothers shown in this report are based on respondents' answers to the question of what their child was usually doing during the time that they were at work. The estimates of the number of children being left unsupervised by an adult during this period may be underestimated by those respondents who perceive that leaving the child unattended may be interpreted as an undesirable response. In some cases, parents—out of concern for their child's safety—may be unwilling to reveal their child's whereabouts when asked about this subject. The misreporting of any specific child care arrangement may affect the overall distribution of child care arrangements shown in this report. In all cases, the interviewer accepted the respondent's answers and did not question the validity of the response.

USER COMMENTS

We are interested in your reaction to the usefulness of the information presented in this report and the content of the subject area covered in the questionnaire (see appendix E for a facsimile of the questionnaire). We welcome your recommendations for improving our survey work and reports. If your have suggestions or comments, please fill out the enclosed Comments Questionnaire at the front of this report and mail it in as indicated. If you prefer, contact the authors of this report at 301-763-5303.

Table 1. **Primary Child Care Arrangements Used by Employed Mothers for Children Under 15 Years, by Marital and Employment Status of Mothers: Fall 1991**

[Numbers in thousands]

Age of child and type of arrangement	All children			Children under 5 years			Children 5 to 14 years		
	Total	Employed full-time	Employed part-time	Total	Employed full-time	Employed part-time	Total	Employed full-time	Employed part-time
All marital statuses									
Total	31,074	20,834	10,240	9,854	6,188	3,666	21,220	14,646	6,574
Care in child's home	5,785	3,107	2,678	3,522	1,853	1,669	2,263	1,254	1,009
By father	3,384	1,519	1,865	1,974	913	1,061	1,411	606	805
By grandparent	971	648	323	708	405	303	263	243	20
By other relative	709	405	304	313	172	140	396	233	164
By nonrelative	720	534	186	527	362	165	193	172	21
Care in another home	3,809	2,705	1,104	3,052	2,166	886	757	539	218
By grandparent	1,095	746	349	846	555	291	249	190	58
By other relative	645	466	179	443	337	106	203	130	73
By nonrelative	2,069	1,492	576	1,763	1,274	489	305	218	87
Organized child care facilities	2,673	2,052	621	2,268	1,722	546	405	331	75
Day/group care center	1,852	1,456	396	1,553	1,197	356	299	259	40
Nursery school/preschool	822	597	225	716	525	191	106	72	34
School-based activity	689	506	184	52	40	12	638	466	172
Kindergarten/grade school	16,281	11,572	4,709	105	87	18	16,176	11,485	4,691
Child cares for self	566	399	167	-	-	-	566	399	167
Mother cares for child at work[1]	1,271	493	778	855	320	535	416	173	243
Married, husband present									
Total	24,674	15,893	8,781	8,048	4,917	3,131	16,625	10,975	5,650
Care in child's home	4,819	2,424	2,395	2,949	1,456	1,493	1,870	968	901
By father	3,242	1,439	1,802	1,847	834	1,013	1,395	606	789
By grandparent	610	411	199	454	255	199	156	156	-
By other relative	438	204	234	203	75	129	234	129	105
By nonrelative	529	370	159	445	292	153	84	78	7
Care in another home	2,788	2,005	783	2,373	1,704	669	415	301	114
By grandparent	803	571	232	652	446	206	151	125	26
By other relative	440	342	99	342	273	69	99	69	30
By nonrelative	1,544	1,092	452	1,379	985	394	165	107	58
Organized child care facilities	2,152	1,643	509	1,825	1,364	461	327	279	48
Day/group care center	1,503	1,200	303	1,257	973	284	246	226	19
Nursery school/preschool	649	443	206	568	391	178	81	52	29
School-based activity	589	446	144	46	40	6	544	406	138
Kindergarten/grade school	12,789	8,657	4,132	66	54	12	12,723	8,603	4,120
Child cares for self	332	245	87	-	-	-	332	245	87
Mother cares for child at work[1]	1,205	473	732	789	300	489	416	173	243
All other marital statuses[2]									
Total	6,401	4,941	1,459	1,806	1,270	536	4,595	3,671	924
Care in child's home	966	683	283	573	397	176	393	286	107
By father	143	80	63	127	80	48	15	-	15
By grandparent	361	237	125	254	150	104	107	87	20
By other relative	271	202	70	109	98	12	162	104	58
By nonrelative	191	164	26	82	70	12	109	95	14
Care in another home	1,021	700	321	679	462	217	342	237	104
By grandparent	292	175	117	194	109	84	98	65	33
By other relative	205	125	80	101	64	37	104	61	43
By nonrelative	524	400	124	384	289	95	140	111	29
Organized child care facilities	521	410	111	443	358	85	78	52	27
Day/group care center	349	256	93	295	224	72	53	32	21
Nursery school/preschool	173	154	19	147	134	13	25	19	6
School-based activity	100	60	40	6	-	6	94	60	34
Kindergarten/grade school	3,492	2,915	577	39	33	6	3,453	2,882	571
Child cares for self	234	154	80	-	-	-	234	154	80
Mother cares for child at work[1]	66	20	46	66	20	46	-	-	-

- Represents zero or rounds to zero.

[1]Includes mothers working at home or away from home.

[2]Includes married, husband absent (including separated), widowed, divorced, and never-married mothers.

Table 2. Primary Child Care Arrangements Used by Employed Mothers for Children Under 5 Years by Characteristics of Mothers: Fall 1991

[Numbers in thousands]

Characteristic	Type of primary child care arrangement													
	Number of children	Care in child's home by				Care in another home by			Day/group care center	Nursery/preschool	School-based activity	Kindergarten/grade school	Child cares for self	Mother cares for child[1]
		Father	Grandparent	Other relative	Non-relative	Grandparent	Other relative	Non-relative						
Total	9,854	1,974	708	313	527	846	443	1,763	1,553	716	52	105	-	855
Race:														
White	8,103	1,744	538	210	490	660	297	1,482	1,279	536	35	87	-	747
Black	1,251	170	95	90	13	153	107	224	213	108	17	9	-	52
Hispanic origin:														
Hispanic	989	187	141	26	88	75	67	99	140	77	5	25	-	58
Non-Hispanic	8,865	1,787	567	286	439	771	376	1,664	1,412	639	46	80	-	797
Marital status:														
Married, spouse present	8,048	1,847	454	203	445	652	342	1,379	1,257	568	46	66	-	789
All other marital statuses[2]	1,806	127	254	109	82	194	101	384	295	147	6	39	-	66
Age of child:														
Less than 1 year	1,650	356	144	45	123	237	93	338	161	28	-	-	-	126
1 and 2 years	4,021	853	323	156	223	346	190	822	612	93	5	-	-	398
3 and 4 years	4,183	765	241	112	181	263	159	603	780	595	46	105	-	331
Educational attainment:														
Less than high school	1,018	180	153	75	52	124	108	127	87	65	6	9	-	30
High school	3,860	765	249	165	146	355	174	752	615	160	35	50	-	395
College, 1 to 3 years	2,602	566	210	20	130	254	126	439	443	212	5	31	-	166
College, 4 or more years	2,375	462	96	53	199	114	34	445	408	278	6	15	-	264
Employment status:														
Full-time	6,188	913	405	172	362	555	337	1,274	1,197	525	40	87	-	320
Part-time	3,666	1,061	303	140	165	291	106	489	356	191	12	18	-	535
Occupation:[3]														
Managerial-professional	2,580	434	136	49	194	183	54	536	470	295	6	22	-	202
Technical, sales, and administrative support	4,062	853	303	101	247	360	219	724	668	252	30	58	-	248
Service occupations	2,144	522	176	112	73	136	111	258	295	121	6	21	-	313
Farming, forestry, and fishing	82	7	-	-	-	20	16	10	-	17	-	-	-	12
Precision production, craft, and repair	216	49	20	5	14	15	7	48	38	6	-	-	-	14
Operators, fabricators, and laborers	720	108	73	47	-	132	37	172	46	25	10	5	-	66
Monthly family income:[4]														
Less than $1,500	1,618	343	90	114	58	175	93	263	239	90	6	29	-	117
$1,500 to $2,999	3,173	802	241	100	110	302	191	498	345	209	35	13	-	328
$3,000 to $4,499	2,594	527	213	58	143	258	99	489	442	128	-	35	-	203
$4,500 and over	2,403	294	158	41	216	94	60	500	526	283	11	28	-	191
Poverty level:[4]														
Below poverty level	977	261	79	65	42	80	46	106	145	35	6	20	-	93
Above poverty level	8,811	1,706	623	248	486	748	397	1,644	1,408	674	46	85	-	746
Region of residence:														
Northeast	1,890	518	281	42	154	143	45	227	163	137	-	11	-	169
Midwest	2,699	609	136	70	144	237	97	580	453	87	-	8	-	279
South	2,992	444	162	91	75	317	165	623	596	267	40	54	-	158
West	2,273	403	130	110	155	150	136	333	341	224	11	32	-	250
Metropolitan residence:														
Metropolitan	7,419	1,551	610	224	427	587	299	1,249	1,173	551	19	87	-	641
In central cities	2,771	654	211	102	201	196	160	411	452	158	13	26	-	186
Outside central cities	4,648	898	400	122	225	391	139	838	721	393	5	61	-	455
Nonmetropolitan	2,436	422	97	89	101	259	144	514	379	165	33	18	-	214

- Represents zero.

[1]Includes mothers working at home or away from home.
[2]Includes married, husband absent (including separated), widowed, divorced, and never-married mothers.
[3]Excludes mothers in the Armed Forces.
[4]Omits persons who did not report family income.

Table 3. **Child Care Arrangements Used by Employed Mothers for Children 5 to 14 Years: Fall 1991**

[Numbers in thousands]

Type of arrangement	5 to 14 years		5 years		6 to 11 years		12 to 14 years	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent
Primary arrangement								
Total	21,220	100.0	2,072	100.0	12,841	100.0	6,307	100.0
Care in child's home	2,263	10.7	419	20.2	1,351	10.5	493	7.8
By father	1,411	6.6	278	13.4	865	6.7	267	4.2
By grandparent	263	1.2	54	2.6	144	1.1	65	1.0
By other relative	396	1.9	32	1.6	222	1.7	142	2.2
By nonrelative	193	0.9	55	2.6	119	0.9	18	0.3
Care in another home	757	3.6	237	11.4	413	3.2	107	1.7
By grandparent	249	1.2	93	4.5	106	0.8	49	0.8
By other relative	203	1.0	38	1.8	131	1.0	33	0.5
By nonrelative	305	1.4	105	5.1	176	1.4	25	0.4
Organized child care facilities	405	1.9	336	16.2	69	0.5	-	-
Day/group care center	299	1.4	230	11.1	69	0.5	-	-
Nursery/preschool	106	0.5	106	5.1	-	-	-	-
School-based activity	638	3.0	63	3.0	456	3.5	119	1.9
Kindergarten/grade school	16,176	76.2	900	43.4	10,187	79.3	5,089	80.7
Child cares for self	566	2.7	-	-	133	1.0	433	6.9
Mother cares for child at work[1]	416	2.0	117	5.6	232	1.8	66	1.1
Primary arrangement, excluding child's time in school								
Total	21,220	100.0	2,072	100.0	12,841	100.0	6,307	100.0
Care in child's home	4,966	23.4	570	27.5	3,299	25.7	1,098	17.4
By father	2,607	12.3	346	16.7	1,733	13.5	529	8.4
By grandparent	616	2.9	82	3.9	418	3.3	116	1.8
By other relative	1,222	5.8	47	2.2	788	6.1	388	6.2
By nonrelative	521	2.5	96	4.6	361	2.8	65	1.0
Care in another home	2,647	12.5	492	23.7	1,832	14.3	324	5.1
By grandparent	961	4.5	184	8.9	628	4.9	149	2.4
By other relative	543	2.6	55	2.6	384	3.0	105	1.7
By nonrelative	1,143	5.4	253	12.2	820	6.4	69	1.1
Organized child care facilities	1,023	4.8	423	20.4	585	4.6	14	0.2
Day/group care center	906	4.3	306	14.8	585	4.6	14	0.2
Nursery/preschool	117	0.5	117	5.6	-	-	-	-
School-based activity[2]	1,082	5.1	76	3.7	787	6.1	219	3.5
Child cares for self	1,562	7.4	-	-	524	4.1	1,038	16.5
No care mentioned	9,322	43.9	378	18.2	5,450	42.4	3,494	55.4
Mother cares for child at work[1]	618	2.9	134	6.4	365	2.8	119	1.9

- Represents zero.

[1]Includes women working at home or away from home.

[2]Includes a small number of children (7,000) who used school as their secondary arrangement.

Table 4. Children of Employed Mothers Using Secondary Child Care Arrangements, by Age of Child and Type of Primary Care Arrangement: Fall 1991

[Numbers in thousands]

Age of child and type of primary arrangement	All children	Type of secondary arrangement																No secondary care used
		Care in child's home by					Care in another home by				Organized child care							
		Total	Father	Grandparent	Other relative	Nonrelative	Total	Grandparent	Other relative	Nonrelative	Total	Day/group care center	Nursery/preschool	School-based activity	Kindergarten/grade school	Child care for self	Mother cares for child	
All children																		
Total	31,074	3,968	1,909	528	980	542	2,919	1,253	530	1,137	1079	841	238	474	340	1,053	255	20,985
Care in child's home	5,785	470	159	89	77	146	399	190	79	130	200	134	66	7	119	33	8	4,549
By father	3,384	235	-	75	33	128	307	173	48	86	165	123	42	7	49	33	-	2,589
By grandparent	971	99	88	-	-	11	25	-	4	22	17	7	10	-	6	-	-	824
By other relative	709	40	14	6	13	7	41	12	13	16	-	-	-	-	58	-	-	570
By nonrelative	720	95	56	8	31	-	26	5	14	6	18	4	14	-	7	-	8	567
Care in another home	3,809	424	361	24	40	-	231	172	33	26	131	40	90	16	101	5	-	2,902
By grandparent	1,095	84	79	-	5	-	58	32	11	15	41	16	25	-	20	5	-	887
By other relative	645	52	40	5	7	-	52	47	-	6	14	7	6	-	-	-	-	527
By nonrelative	2,069	288	242	18	28	-	121	94	22	6	76	17	59	16	81	-	-	1,488
Organized child care facilities	2,673	195	98	50	19	29	296	135	58	103	73	30	43	8	55	-	27	2,019
Day/group care center	1,852	105	47	30	9	18	138	75	47	16	43	-	43	-	55	-	-	1,511
Nursery/preschool	822	91	51	20	9	11	158	61	11	87	30	30	-	8	-	-	27	508
School-based activity	589	62	14	7	12	29	50	25	5	20	14	14	-	-	21	12	18	512
Kindergarten/grade school	16,281	2,729	1,208	358	835	328	1,890	712	341	838	632	621	11	444	7	996	202	9,381
Child care for self	566	22	20	-	2	-	14	-	14	-	-	-	-	-	24	8	-	498
Mother cares for child at work[1]	1,271	65	50	-	5	9	39	18	-	20	31	3	28	-	12	-	-	1,124
Children under 5 years																		
Total	9,854	951	612	110	94	135	767	410	107	250	413	208	205	22	13	-	7	7,681
Care in child's home	3,522	328	133	51	42	102	299	146	40	113	176	127	48	-	-	-	-	2,719
By father	1,974	166	-	43	26	95	236	134	29	75	141	116	25	-	-	-	-	1,429
By grandparent	706	82	82	-	-	-	25	-	4	22	17	7	10	-	-	-	-	584
By other relative	313	7	-	-	7	23	7	-	16	-	-	-	-	-	-	-	-	282
By nonrelative	527	73	51	8	14	-	12	5	7	-	18	4	14	-	-	-	-	424
Care in another home	3,052	379	334	12	33	-	167	122	24	21	131	40	90	8	13	-	-	2,354
By grandparent	846	84	79	-	5	-	18	-	3	15	41	16	25	-	-	-	-	703
By other relative	443	27	27	-	-	-	41	41	-	-	14	7	6	-	-	-	-	361
By nonrelative	1,763	268	228	12	28	-	108	81	22	6	76	17	59	8	13	-	-	1,291
Organized child care facilities	2,268	164	89	42	9	24	280	135	42	103	62	24	38	8	-	-	7	1,747
Day/group care center	1,553	97	47	22	9	18	122	75	31	16	38	-	38	-	-	-	-	1,295
Nursery/preschool	716	67	41	20	-	6	158	61	11	87	24	24	-	8	-	-	7	452
School-based activity	52	7	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45
Kindergarten/grade school	105	25	11	5	9	-	105	-	-	105	14	14	-	6	-	-	-	60
Child care for self	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mother cares for child at work[1]	855	47	37	-	-	9	21	6	-	14	31	3	28	-	-	-	-	757
Children 5 to 14 years																		
Total	21,220	3,017	1,297	417	886	407	2,152	843	423	887	666	633	33	452	327	1,053	248	13,304
Care in child's home	2,263	142	25	38	34	44	100	44	39	17	24	6	18	7	119	33	8	1,830
By father	1,411	69	-	32	4	33	69	39	19	11	24	6	18	7	49	33	-	1,160
By grandparent	263	17	6	-	-	11	-	-	-	-	-	-	-	-	6	-	-	240
By other relative	396	34	14	6	13	-	17	5	13	-	-	-	-	-	58	-	-	287
By nonrelative	193	22	5	-	17	-	13	-	7	6	-	-	-	-	7	-	8	142
Care in another home	757	45	26	12	7	-	64	50	9	6	-	-	-	8	88	5	-	547
By grandparent	249	-	-	-	-	-	40	32	9	-	-	-	-	-	20	5	-	184
By other relative	203	25	13	5	7	-	11	6	-	6	-	-	-	-	-	-	-	167
By nonrelative	305	20	14	7	-	-	13	13	-	-	-	-	-	8	68	-	-	197
Organized child care facilities	405	31	9	7	9	5	16	-	16	-	11	6	5	-	55	-	20	272
Day/group care center	299	7	-	7	-	-	16	-	16	-	5	-	5	-	55	-	-	216
Nursery/preschool	106	24	9	-	9	5	-	-	-	-	6	6	-	-	-	-	20	56
School-based activity	638	55	7	7	12	29	50	25	5	20	14	14	-	-	21	12	18	467
Kindergarten/grade school	16,176	2,703	1,196	353	826	328	1,890	712	341	838	618	607	11	437	7	996	202	9,322
Child care for self	566	22	20	-	2	-	14	-	14	-	-	-	-	-	24	8	-	498
Mother cares for child at work[1]	416	18	13	-	5	-	18	12	-	6	-	-	-	-	12	-	-	367

- Represents zero.

[1] Includes mothers working at home or away from home.

Table 5. Percent of Children Reported to be in Self Care While Mother is at Work by Age of Child: Fall 1991

[Numbers in thousands]

Characteristics	5 to 14 years			5 to 11 years			12 to 14 years		
	Number of children	In self care		Number of children	In self care		Number of children	In self care	
		Number	Percent		Number	Percent		Number	Percent
Total	21,220	1,611	7.6	14,913	554	3.7	6,307	1,058	16.8
Child's gender:									
Male	10,736	871	8.1	7,609	335	4.4	3,128	537	17.2
Female	10,484	740	7.1	7,304	219	3.0	3,179	521	16.4
Race:									
White	17,393	1,444	8.3	12,141	494	4.1	5,252	950	18.1
Black	2,841	103	3.6	2,087	29	1.4	754	74	9.9
Other	986	64	6.5	685	31	4.6	301	33	11.0
Hispanic origin:									
Hispanic	1,733	84	4.8	1,295	35	2.7	439	49	11.2
Non-Hispanic	19,487	1,528	7.8	13,618	519	3.8	5,868	1,009	17.2
Marital status:									
Married	16,625	1,122	6.8	11,751	377	3.2	4,874	745	15.3
Not married	4,595	489	10.6	3,162	177	5.6	1,432	312	21.8
Other adults in household:									
None	16,920	1,269	7.5	12,262	464	3.8	4,658	805	17.3
One or more	4,300	342	8.0	2,651	89	3.4	1,649	253	15.3
Employment status:									
Full-time	14,646	1,285	8.8	10,301	478	4.6	4,345	807	18.6
Part-time	6,574	326	5.0	4,612	76	1.6	1,962	250	12.8
Class of worker:									
Self-employed	1,835	48	2.6	1,318	19	1.4	516	30	5.8
Employee	19,385	1,563	8.1	13,596	535	3.9	5,790	1,027	17.7
Type of work shift:									
Day shift	13,686	1,098	8.0	9,522	394	4.1	4,164	704	16.9
Non-day shift	7,534	513	6.8	5,391	160	3.0	2,143	353	16.5
Monthly family income:[1]									
Less than $1,500	2,960	213	7.2	2,163	80	3.7	798	133	16.7
$1,500 to $2,999	6,380	422	6.6	4,659	168	3.6	1,722	254	14.8
$3,000 to $4,499	5,536	411	7.4	3,937	157	4.0	1,599	254	15.9
$4,500 and over	6,276	563	9.0	4,095	149	3.6	2,181	414	19.0
Poverty level:[1]									
Below poverty level	1,848	143	7.8	1,367	67	4.9	481	76	15.9
Above poverty level	19,306	1,466	7.6	13,488	487	3.6	5,818	979	16.8
Educational attainment:									
Less than high school	2,312	152	6.6	1,598	32	2.0	714	120	16.8
High school	8,573	584	6.8	5,984	222	3.7	2,589	362	14.0
College, 1 to 3 years	5,406	477	8.8	3,811	190	5.0	1,595	287	18.0
College, 4 or more years	4,929	399	8.1	3,520	109	3.1	1,410	289	20.5
Region:									
Northeast	3,952	225	5.7	2,758	40	1.5	1,194	185	15.5
Midwest	6,082	733	12.1	4,160	263	6.3	1,922	470	24.5
South	6,919	331	4.8	5,085	130	2.6	1,834	200	10.9
West	4,267	322	7.5	2,910	120	4.1	1,358	202	14.9
Metropolitan residence:									
Metropolitan	15,615	1,316	8.4	10,955	427	3.9	4,660	889	19.1
Central cities	5,298	361	6.8	3,871	107	2.8	1,427	254	17.8
Outside central cities	10,317	956	9.3	7,084	321	4.5	3,232	635	19.7
Nonmetropolitan	5,605	295	5.3	3,958	126	3.2	1,647	169	10.2

[1]Includes only children living in families with income.

Note: Estimates of latchkey kids are derived from table 4 and include 566,000 children 5 to 14 who are in self care as their primary arrangement and another 1,045,000 children in self care as their secondary arrangement (the 8,000 children reporting self care as both primary and secondary arrangements are not included twice).

Table 6. **Logistic Regressions for Odds of a Child Reported to be in Self Care While the Mother is at Work, by Age of Child: Fall 1991**

Characteristics	Age of child			
	5 to 11 years		12 to 14 years	
	Coefficient	Standard error	Coefficient	Standard error
Job related characteristics:				
Employment (part time)	...	...	...	...
Full-time	[1]1.440	0.603	-0.074	0.376
Class of worker (employee)	...	...	...	...
Self-employed	-0.902	0.735	[1]-1.266	0.592
Shift work (non-day shift)	...	...	...	...
Day shift	0.451	0.717	[1]-1.043	0.476
Employment/shift interaction	...	...	...	...
Full-time x day shift	-0.554	0.792	[1]1.275	0.566
Family characteristics:				
Marital status (married)	...	...	...	...
Unmarried	0.607	0.378	[1]0.706	0.310
Other adult in the household (not present)	...	...	...	...
Present	-0.243	0.404	-0.238	0.262
Demographic characteristics:				
Child's age (years)	[1]0.547	0.092	[1]0.282	0.133
Child's gender (female)	...	...	...	...
Male	0.459	0.281	-0.002	0.215
Race (other races)	...	...	...	...
Non-Hispanic White	-0.335	0.633	0.485	0.604
Non-Hispanic Black	[2]-1.771	0.904	-0.264	0.717
Hispanic	-0.703	0.810	-0.137	0.760
Region (Midwest)	...	...	...	...
Northeast	[1]-1.784	0.537	[1]-0.804	0.309
South	[1]-1.020	0.354	[1]-0.977	0.291
West	-0.479	0.371	[1]-0.811	0.310
Metropolitan status (nonmetropolitan)	...	...	...	...
City	0.216	0.432	[1]0.848	0.346
Suburb	[1]0.878	0.349	[1]0.903	0.300
Mother's education (less than high school)	...	...	...	...
High school	0.867	0.615	-0.281	0.379
College, 1 to 3 years	[1]1.270	0.629	-0.033	0.401
College, 4 or more years	0.849	0.681	0.031	0.433
Economic characteristics:				
Log of income (dollars)	-0.159	0.305	0.179	0.247
Poverty status (not in poverty)	...	...	...	...
In poverty	0.550	0.579	0.425	0.512
Constant	[1]-8.707	2.681	[1]-7.159	2.745
Likelihood X^2	137.51		79.46	
Degrees of freedom	21		21	
Number of cases (unweighted)	2,268		939	

... Reference category.

[1]Statistically significant at the 95-percent confidence level.
[2]Statistically significant at the 90-percent confidence level.

Note: Individual categories listed in parentheses following factor headings indicate reference categories in the models.

Table 7. **Primary Child Care Arrangements of Children Under 15, by Type of Work Shift of Parent's Principal Job: Fall 1991**

Part A. By Mother's Employment Status

[Numbers in thousands]

Employment status and type of arrangement	Number of children	Type of shift		Age of child and type of shift			
				Under 5 years		5 to 14 years	
		Day shift	Non-day shift	Day shift	Non-day shift	Day shift	Non-day shift
All mothers							
Total	31,074	19,346	11,729	5,659	4,195	13,686	7,534
Care in child's home	5,785	2,262	3,523	1,532	1,990	730	1,533
By father	3,384	1,049	2,335	686	1,288	363	1,047
By grandparent	971	588	384	420	288	167	96
By other relative	709	184	525	74	238	109	287
By nonrelative	720	441	279	351	176	90	103
Care in provider's home	3,809	2,322	1,487	1,935	1,117	387	370
By grandparent	1,095	606	489	481	365	125	124
By other relative	645	329	316	251	191	78	125
By nonrelative	2,069	1,386	682	1,202	561	184	121
Organized child care facilities	2,673	1,964	709	1,672	596	292	113
Day/group care center	1,852	1,342	509	1,108	444	234	65
Nursery/preschool	822	622	200	564	151	58	49
School-based activity	689	492	198	30	22	462	176
Kindergarten/grade school	16,281	11,378	4,903	84	21	11,293	4,882
Child cares for self	566	341	225	-	-	341	225
Mother cares for child at work[1]	1,271	588	683	405	450	182	234
Mothers employed full-time							
Total	20,088	15,240	4,848	4,286	1,583	10,954	3,265
Care in child's home	2,932	1,666	1,266	1,091	666	574	600
By father	1,507	695	813	459	424	236	389
By grandparent	583	443	140	285	102	157	38
By other relative	323	159	164	68	66	91	98
By nonrelative	519	370	149	279	74	90	75
Care in provider's home	2,577	1,886	691	1,590	488	295	204
By grandparent	716	513	203	396	130	117	73
By other relative	407	269	138	222	79	47	59
By nonrelative	1,454	1,103	350	972	278	132	72
Organized child care facilities	1,983	1,557	426	1,305	348	252	78
Day/group care center	1,405	1,075	330	868	277	207	53
Nursery/preschool	579	482	96	438	71	45	26
School-based activity	526	429	97	30	10	399	87
Kindergarten/grade school	11,259	9,104	2,155	73	8	9,031	2,147
Child cares for self	386	303	83	-	-	303	83
Mother cares for child at work[1]	425	295	130	195	64	99	67
Mothers employed part-time							
Total	10,986	4,106	6,880	1,374	2,612	2,732	4,268
Care in child's home	2,853	596	2,257	441	1,324	155	933
By father	1,877	355	1,522	227	864	127	659
By grandparent	389	145	244	135	186	10	58
By other relative	386	25	361	7	172	18	189
By nonrelative	201	72	130	72	102	-	27
Care in provider's home	1,232	436	796	345	630	92	166
By grandparent	379	93	286	85	235	8	51
By other relative	238	60	178	29	112	31	66
By nonrelative	615	283	332	230	283	52	49
Organized child care facilities	690	407	283	367	248	40	35
Day/group care center	447	268	179	241	167	27	12
Nursery/preschool	243	139	104	126	81	13	23
School-based activity	163	62	101	-	12	62	89
Kindergarten/grade school	5,022	2,274	2,748	11	12	2,263	2,736
Child cares for self	180	38	142	-	-	38	142
Mother cares for child at work[1]	846	293	553	210	386	83	167

- Represents zero.

[1]Includes women working at home or away from home.

Table 7. Primary Child Care Arrangements of Children Under 15, by Type of Work Shift of Parent's Principal Job: Fall 1991

Part B. By Father's Employment Status

[Numbers in thousands. Limited to children in married-couple families]

Employment status and type of arrangement	Number of children	Type of shift		Age of child and type of shift				Fathers not at work
				Under 5 years		5 to 14 years		
		Day shift	Non-day shift	Day shift	Non-day shift	Day shift	Non-day shift	
All fathers								
Total	23,369	16,681	6,689	5,211	2,439	11,470	4,250	1304
Care in child's home	4,355	2,849	1,506	1,655	1,046	1,194	461	463
By father	2,861	1,804	1,057	900	725	904	332	381
By grandparent	577	462	115	345	82	118	32	33
By other relative	388	230	158	117	86	113	71	50
By nonrelative	529	353	177	294	152	59	25	-
Care in provider's home	2,712	1,916	796	1,595	706	321	90	76
By grandparent	774	529	245	411	213	119	32	29
By other relative	434	281	154	212	124	69	30	6
By nonrelative	1,504	1,106	398	973	370	133	28	40
Organized child care facilities	2,089	1,601	488	1,324	444	277	45	63
Day/group care center	1,476	1,125	351	917	318	208	33	27
Nursery/preschool	613	476	137	406	125	69	12	36
School-based activity	555	360	195	25	14	335	182	34
Kindergarten/grade school	12,147	8,825	3,323	28	25	8,796	3,298	642
Child cares for self	306	242	64	-	-	242	64	26
Mother cares for child at work[1]	1,205	888	317	583	206	305	111	-
Fathers employed full-time								
Total	21,287	16,364	4,923	5,122	1,781	11,242	3,142	(NA)
Care in child's home	3,871	2,782	1,089	1,610	740	1,173	349	(NA)
By father	2,532	1,776	757	886	518	890	239	(NA)
By grandparent	518	450	69	332	43	118	26	(NA)
By other relative	373	230	143	117	78	113	65	(NA)
By nonrelative	448	327	121	276	102	51	19	(NA)
Care in provider's home	2,470	1,887	583	1,587	504	300	79	(NA)
By grandparent	714	529	185	411	152	119	32	(NA)
By other relative	364	259	105	203	87	56	18	(NA)
By nonrelative	1,392	1,099	293	973	265	126	28	(NA)
Organized child care facilities	1,999	1,601	399	1,324	371	277	28	(NA)
Day/group care center	1,403	1,125	278	917	257	208	21	(NA)
Nursery/preschool	596	476	121	406	114	69	7	(NA)
School-based activity	448	360	88	25	6	335	82	(NA)
Kindergaren/grade school	11,100	8,642	2,457	23	14	8,619	2,443	(NA)
Child cares for self	299	242	56	-	-	242	56	(NA)
Mother cares for child at work[1]	1,101	849	251	553	146	296	106	(NA)
Fathers employed part-time								
Total	2,082	317	1,766	89	658	228	1,108	(NA)
Care in child's home	484	67	417	45	305	22	112	(NA)
By father	328	28	300	14	207	14	93	(NA)
By grandparent	59	13	46	13	39	-	7	(NA)
By other relative	15	-	15	-	9	-	6	(NA)
By nonrelative	82	26	56	18	50	8	6	(NA)
Care in provider's home	242	29	213	8	202	20	12	(NA)
By grandparent	60	-	60	-	60	-	-	(NA)
By other relative	70	22	48	8	37	13	12	(NA)
By nonrelative	112	7	105	-	105	7	-	(NA)
Organized child care facilities	90	-	90	-	73	-	17	(NA)
Day/group care center	73	-	73	-	61	-	12	(NA)
Nursery/preschool	16	-	16	-	12	-	5	(NA)
School-based activity	107	-	107	-	8	-	100	(NA)
Kindergarten/grade school	1,048	182	865	5	11	177	855	(NA)
Child cares for self	7	-	7	-	-	-	7	(NA)
Mother cares for child at work[1]	104	39	65	30	60	8	5	(NA)

- Represents zero.
NA Not available.

[1]Includes women working at home or away from home.

Table 8. **Type of Work Schedule of Principal Job Used by Employed Mothers with Children Under 15 Years: Fall 1991**

[Numbers in thousands]

Respondent's description of type of work schedule and age of children	Number of employed mothers who work			Number of children of employed mothers who work		
	Total	Daytime hours	Non-day hours	Total	Daytime hours	Non-day hours
All mothers						
All schedules	19,260	13,977	5,283	31,074	22,488	8,586
Regular daytime schedule	14,434	*12,086	2,348	23,025	*19,346	3,680
Regular evening shift	1,314	220	1,093	2,200	383	1,817
Regular night shift	621	47	574	1,021	88	933
Rotating shift[1]	416	246	170	605	355	250
Split shift[2]	254	136	118	375	200	174
Irregular schedule	1,857	1,023	834	3,187	1,729	1,459
All other schedules	364	218	146	661	387	273
Children under 5 years[3]						
All schedules	7,982	5,566	2,415	9,854	6,784	3,070
Regular daytime schedule	5,592	*4,705	888	6,717	*5,659	1,058
Regular evening shift	771	105	666	951	125	826
Regular night shift	259	7	253	329	5	324
Rotating shift[1]	186	117	70	232	144	87
Split shift[2]	58	45	13	70	54	16
Irregular schedule	934	490	444	1,315	674	641
All other schedules	181	98	82	240	123	117
Children 5 to 14 years[3]						
All schedules	11,278	8,411	2,868	21,220	15,704	5,516
Regular daytime schedule	8,841	*7,382	1,460	16,308	*13,686	2,621
Regular evening shift	543	115	427	1,249	259	990
Regular night shift	362	40	322	691	82	609
Rotating shift[1]	230	129	100	374	211	163
Split shift[2]	196	92	105	304	146	158
Irregular schedule	923	533	390	1,873	1,055	818
All other schedules	184	120	64	421	264	157

[1]A shift that changes regularly from days to evenings or nights.
[2]A shift that consists of two distinct periods each day.
[3]For estimates of numbers of employed women, age refers to age of youngest child.

Note: The numbers marked with an "*" indicate the estimates of employed mothers who work regularly scheduled day shifts and the numbers of children of these mothers.

Table 9. **Primary Child Care Arrangements Used by Dual-Employed Parents: Fall 1991**

[Numbers in thousands. Limited to children in married-couple families where both parents are employed]

Work status of mother's principal job and type of arrangement	Total (1)	Children under 5 years				Children 5 to 14 years			
		Mother works day shift		Mother works non-day shift		Mother works day shift		Mother works non-day shift	
		Father works day shift (2)	Father works non-day shift (3)	Father works day shift (4)	Father works non-day shift (5)	Father works day shift (6)	Father works non-day shift (7)	Father works day shift (8)	Father works non-day shift (9)
All mothers									
Total	23,369	3,227	1,264	1,984	1,175	7,661	2,488	3,808	1,761
Care in child's home	4,355	675	526	980	520	412	153	783	308
By father	2,861	175	369	726	357	191	125	713	206
By grandparent	577	247	39	97	43	114	14	4	18
By other relative	388	34	24	83	63	64	-	49	71
By nonrelative	529	219	95	75	57	42	13	17	12
Care in provider's home	2,712	1,128	358	468	348	221	13	99	77
By grandparent	774	268	115	142	97	98	13	21	19
By other relative	434	138	59	74	65	44	-	25	30
By nonrelative	1,504	722	184	251	186	79	-	53	28
Organized child care facilities	2,089	1,090	264	234	180	224	16	53	29
Day/group care center	1,476	740	181	177	137	183	16	25	17
Nursery/preschool	613	350	83	57	42	42	-	28	12
School-based activity	555	15	8	10	6	238	131	96	51
Kindergarten/grade school	12,147	28	11	-	14	6,249	2,084	2,547	1,214
Child cares for self	306	-	-	-	-	180	46	62	18
Mother cares for child at work[1]	1,205	291	98	292	107	136	46	168	65
Mother employed full-time									
Total	14,445	2,464	877	623	453	5,963	1,928	1,522	615
Care in child's home	2,069	491	340	252	171	322	120	278	94
By father	1,176	128	216	213	107	106	93	257	57
By grandparent	370	161	34	16	16	114	14	4	11
By other relative	154	34	17	11	13	59	-	-	20
By nonrelative	369	168	74	13	36	42	13	17	6
Care in provider's home	1,858	955	277	182	171	160	13	67	35
By grandparent	515	214	107	36	43	89	13	8	5
By other relative	307	138	36	44	26	21	-	25	17
By nonrelative	1,035	603	133	101	102	49	-	34	13
Organized child care facilities	1,530	834	203	136	92	207	7	34	18
Day/group care center	1,125	575	145	110	80	172	7	25	11
Nursery/preschool	405	259	58	26	12	35	-	9	7
School-based activity	428	15	8	10	-	208	117	55	16
Kindergarten/grade school	7,936	23	11	-	8	4,834	1,611	1,049	400
Child cares for self	219	-	-	-	-	148	46	7	18
Mother cares for child at work[1]	405	146	38	44	11	85	14	32	35
Mothers employed part-time									
Total	8,925	763	388	1,360	722	1,698	561	2,287	1,146
Care in child's home	2,287	184	186	728	348	90	32	505	214
By father	1,685	46	153	513	250	85	32	456	150
By grandparent	207	86	6	81	27	-	-	-	7
By other relative	234	-	7	72	50	5	-	49	51
By nonrelative	161	51	21	61	21	-	-	-	6
Care in provider's home	854	173	81	286	177	62	-	32	43
By grandparent	259	54	8	106	54	8	-	13	14
By other relative	127	-	23	30	39	23	-	-	12
By nonrelative	469	119	51	150	84	30	-	19	16
Organized child care facilities	559	256	61	98	88	18	9	18	10
Day/group care center	351	165	36	68	58	10	9	-	6
Nursery/preschool	207	91	25	31	30	7	-	18	5
School-based activity	127	-	-	-	6	31	14	42	35
Kindergarten/grade school	4,211	5	-	-	5	1,415	474	1,498	813
Child cares for self	87	-	-	-	-	32	-	55	-
Mother cares for child at work[1]	800	146	60	248	97	51	31	136	31

- Represents zero.

[1]Includes women working at home or away from home.

Table 10. **Weekly Child Care Costs Paid by Families: Fall 1991**

[Numbers of parents in thousands. Excludes persons with no report of family income in last 4 months]

Characteristic	Number	No payments made	Payments made		Weekly child care expenses		Hours worked per week		Monthly family income		Income spent on child care per month	
			Number	Percent	Mean[1]	Standard error	Mean[2]	Standard error	Mean[3]	Standard error	Percent[4]	Standard error
All Parents												
Total	22,098	14,823	7,275	32.9	62.4	2.28	36.3	0.43	3,729	110	7.3	0.31
Employed mothers	19,180	12,564	6,616	34.5	63.3	2.43	37.4	0.39	3,838	109	7.1	0.33
Unemployed mothers	834	735	98	11.8	(B)	(B)	(B)	(B)	(B)	(B)	(B)	(B)
Mothers enrolled in school	1,039	785	254	24.4	45.1	7.45	18.5	2.16	3,021	1230	6.5	0.08
All fathers	1,046	738	308	29.4	59.9	8.35	37.2	2.52	2,272	325	11.4	0.61
Employed mothers												
Race:												
White	15,803	10,302	5,501	34.8	62.4	2.34	36.9	0.43	3,885	116	7.0	0.29
Black	2,447	1,641	806	32.9	53.2	4.49	39.0	1.03	3,179	346	7.3	0.20
Hispanic origin:												
Hispanic	1,560	983	577	37.0	62.2	5.79	39.1	0.75	3,306	297	8.4	0.33
Non-Hispanic	17,620	11,581	6,039	34.3	63.2	2.62	37.2	0.43	3,889	116	7.0	0.33
Marital status:												
Married, spouse present	14,578	9,595	4,983	34.2	66.0	3.02	37.0	0.46	4,384	124	6.5	0.33
All other marital statuses[5]	4,601	2,969	1,633	35.5	55.0	3.16	36.4	0.77	2,172	148	11.0	0.49
Age of youngest child:												
Under 5 years	7,917	3,174	4,743	59.9	72.3	3.05	36.5	0.50	3,736	120	8.4	0.44
Less than 1 year	1,555	700	855	55.0	74.3	6.35	34.3	1.26	3,719	248	8.7	0.46
1 and 2 years	3,568	1,452	2,115	59.3	74.0	4.66	36.4	0.73	3,719	180	8.6	0.47
3 and 4 years	2,794	1,022	1,772	63.4	69.4	5.09	37.8	0.79	3,763	209	8.0	0.41
5 to 14 years	11,263	9,390	1,873	16.6	40.4	3.16	39.5	0.61	4,098	234	4.3	0.12
Number of children:												
One child	9,381	6,454	2,927	31.2	55.1	3.28	38.2	0.57	3,697	164	6.5	0.27
Two children	6,924	4,258	2,666	38.5	66.4	3.51	36.9	0.60	4,007	179	7.2	0.29
Three or more children	2,875	1,852	1,023	35.6	78.6	8.40	36.3	1.25	3,802	243	9.0	0.64
Educational attainment:												
Less than high school	1,979	1,406	572	28.9	54.3	6.46	36.7	1.43	2,189	241	10.8	0.60
High school	7,739	5,293	2,446	31.6	52.8	2.39	37.5	0.58	3,162	142	7.2	0.25
College, 1 to 3 years	5,084	3,240	1,845	36.3	67.0	6.14	37.8	0.82	3,666	170	7.9	0.60
College, 4 or more years	4,378	2,625	1,753	40.0	76.9	5.07	37.0	0.82	5,501	250	6.1	0.26
Employment status:												
Full-time	13,202	8,008	5,193	39.3	65.8	2.93	41.6	0.27	3,893	123	7.3	0.36
Part-time	5,978	4,555	1,423	23.8	54.2	3.67	22.1	0.66	3,638	232	6.5	0.21
Occupation:[6]												
Managerial-professional	5,253	3,015	2,238	42.6	69.6	4.94	37.5	0.73	5,037	214	6.0	0.29
Technical, sales, and administrative support	8,064	5,349	2,715	33.7	64.2	3.69	37.3	0.56	3,573	140	7.8	0.43
Service occupations	3,530	2,606	923	26.2	53.4	4.65	35.0	1.25	2,676	246	8.6	0.34
Farming, forestry, and fishing	217	165	52	23.9	(B)	(B)	(B)	(B)	(B)	(B)	(B)	(B)
Precision production, craft, and repair	449	298	151	33.7	(B)	(B)	(B)	(B)	(B)	(B)	(B)	(B)
Operators, fabricators, and laborers	1,600	1,106	494	30.9	48.2	5.98	38.6	1.40	2,470	262	8.5	0.40
Monthly family income:												
Less than $1,500	2,914	1,988	926	31.8	51.1	4.75	35.6	1.11	1,018	41	21.7	5.25
$1,500 to $2,999	5,885	4,014	1,871	31.8	57.9	5.45	38.2	0.78	2,277	33	11.0	3.79
$3,000 to $4,499	4,994	3,152	1,842	36.9	62.2	3.84	37.3	0.72	3,670	35	7.3	1.68
$4,500 and over	5,387	3,410	1,977	36.7	75.1	4.51	37.5	0.73	6,794	200	4.8	0.22
Poverty level:												
Below poverty level	1,642	1,246	396	24.1	59.5	9.73	33.9	1.93	971	180	26.6	2.99
Above poverty level	17,537	11,317	6,220	35.5	63.5	2.52	37.6	0.41	4,021	110	6.9	0.33
Region of residence:												
Northeast	3,653	2,627	1,025	28.1	85.7	10.30	36.5	1.08	4,248	285	8.7	0.66
Midwest	5,316	3,494	1,822	34.3	56.2	2.89	37.3	0.82	3,664	204	6.7	0.20
South	6,317	3,937	2,380	37.7	54.2	2.60	37.6	0.61	3,511	168	6.7	0.22
West	3,894	2,506	1,388	35.6	71.5	6.11	37.7	0.85	4,326	257	7.2	0.35
Metropolitan residence:												
Metropolitan	14,308	9,316	4,992	34.9	67.7	2.83	37.3	0.46	4,068	131	7.2	0.32
Central cities	4,893	3,166	1,727	35.3	71.6	6.00	38.5	0.77	3,854	247	8.1	0.41
Outside central cities	9,416	6,150	3,265	34.7	65.6	2.93	36.6	0.59	4,181	151	6.8	0.27
Non metropolitan	4,871	3,248	1,624	33.3	49.9	4.61	37.6	0.78	3,132	177	6.9	0.37

B Base too small to show derived measure.

[1]Mean expenditures per week among persons making child care payments.
[2]Mean number of hours usually worked per week in last 4 months among persons making child care payments. For persons enrolled in school or unemployed, hours per week represents time spent in these activities.
[3]Mean monthly income for last 4 months among persons making child care payments.
[4]Percent is ratio of average monthly child care payments (prorated from weekly averages) to the average monthly family income for each of the categories shown in the table.
[5]Includes married, husband absent (including separated), widowed, divorced and never-married women.
[6]Excludes persons in the Armed Forces.

Table 11. Number of Child Care Arrangements Made by Employed Mothers by Payment Status of Arrangement: Fall 1991

[Numbers in thousands]

Age of child and type of arrangement	Number of arrangements	No payments made	Payments made			
			Total	Percent	Separate payments	Shared payments
Arrangements for all children						
Total	42,447	33,027	9,420	22.2	6,188	3,232
By father	5,651	5,651	(X)	(X)	(X)	(X)
By brother/sister	1,127	1,127	(X)	(X)	(X)	(X)
By grandparent	3,924	3,177	747	19.0	499	247
In child's home	1,577	1,250	327	20.7	188	139
In provider's home	2,347	1,927	420	17.9	311	108
By other relative	1,531	941	590	38.6	315	276
In child's home	667	501	166	24.9	86	80
In provider's home	863	440	424	49.1	229	195
By nonrelative	4,588	576	4,012	87.5	2,365	1,647
In child's home	1,304	174	1,130	86.7	395	735
In provider's home	3,285	402	2,882	87.8	1,971	912
Organized child care facilities	3,798	311	3,488	91.8	2,572	916
Day/group care center	2,760	133	2,627	95.2	1,880	747
Nursery/preschool	1,038	177	861	82.9	692	169
School-based activity	1,211	628	583	48.1	436	147
Kindergarten/grade school	17,374	17,374	(X)	(X)	(X)	(X)
Child cares for self	1,730	1,730	(X)	(X)	(X)	(X)
Mother works at home	1,021	1,021	(X)	(X)	(X)	(X)
Mother cares for child at workplace	492	492	(X)	(X)	(X)	(X)
Arrangements for children under 5 years						
Total	11,917	6,044	5,873	49.3	4,153	1,720
By father	2,602	2,602	(X)	(X)	(X)	(X)
By brother/sister	102	102	(X)	(X)	(X)	(X)
By grandparent	2,055	1,571	484	23.5	398	86
In child's home	833	632	201	24.1	140	61
In provider's home	1,222	939	283	23.2	258	25
By other relative	782	368	414	53.0	230	184
In child's home	292	175	117	40.0	67	50
In provider's home	489	192	297	60.7	163	134
By nonrelative	2,667	149	2,518	94.4	1,645	873
In child's home	661	20	641	97.0	276	365
In provider's home	2,006	129	1,876	93.6	1,368	508
Organized child care facilities	2,679	256	2,423	90.4	1,854	569
Day/group care center	1,782	98	1,684	94.5	1,252	432
Nursery/preschool	897	158	739	82.4	603	137
School-based activity	72	38	34	(B)	26	8
Kindergarten/grade school	117	117	(X)	(X)	(X)	(X)
Child cares for self	-	-	-	-	-	-
Mother works at home	596	596	(X)	(X)	(X)	(X)
Mother cares for child at workplace	245	245	(X)	(X)	(X)	(X)
Arrangements for children 5 to 14 years						
Total	30,530	26,983	3,547	11.6	2,034	1,513
By father	3,048	3,048	(X)	(X)	(X)	(X)
By brother/sister	1,026	1,026	(X)	(X)	(X)	(X)
By grandparent	1,868	1,605	263	14.1	102	161
In child's home	744	618	126	17.0	48	78
In provider's home	1,125	988	137	12.2	53	83
By other relative	749	573	176	23.5	84	92
In child's home	375	326	49	13.2	19	30
In provider's home	374	247	127	33.9	65	62
By nonrelative	1,921	427	1,495	77.8	721	774
In child's home	642	154	489	76.1	118	370
In provider's home	1,279	273	1,006	78.7	602	404
Organized child care facilities	1,119	55	1,064	95.1	718	347
Day/group care center	978	35	943	96.4	628	315
Nursery/preschool	141	20	121	(B)	89	32
School-based activity	1,139	590	549	48.2	410	139
Kindergarten/grade school	17,257	17,257	(X)	(X)	(X)	(X)
Child cares for self	1,730	1,730	(X)	(X)	(X)	(X)
Mother works at home	425	425	(X)	(X)	(X)	(X)
Mother cares for child at workplace	247	247	(X)	(X)	(X)	(X)

- Represents zero.
B Base less than 200,000.
X Not applicable.

Table 12. **Weekly Child Care Costs of Employed Mothers When Payments Are Made Separately for Each Child: Fall 1991**

[Numbers in thousands. Limited to arrangements using 10 or more hours per week]

Age of child and type of arrangement	Number of arrangements	Weekly hours per arrangement		Weekly cost per arrangement		Hourly cost per arrangement	
		Mean	Standard error	Mean	Standard error	Mean[1]	Standard error
Arrangements for all children							
Total	4,586	29.7	0.60	$54.9	$2.04	$2.07	$0.08
By relative	607	30.8	1.64	49.8	5.77	1.88	0.24
Grandparent	383	31.3	2.10	57.5	8.76	2.21	0.37
Other relative	225	30.0	2.61	36.7	3.70	1.30	0.10
By nonrelative	1,805	29.8	0.95	55.7	4.11	2.07	0.14
In child's home	304	30.8	2.31	79.6	11.38	2.73	0.38
In provider's home	1,501	29.6	1.04	50.8	4.27	1.93	0.15
Organized child care facilities	1,893	31.0	0.93	59.7	2.24	2.15	0.08
Day/group care center	1,444	30.9	1.07	58.9	2.61	2.13	0.09
Nursery/preschool	449	31.3	1.87	62.3	4.34	2.20	0.17
School-based activity	280	16.7	1.64	28.8	3.14	2.05	0.27
Arrangements for children under 5 years							
Total	3,262	33.6	0.66	$62.0	$2.68	$2.06	$0.09
By relative	503	32.8	1.74	53.2	6.77	1.84	0.27
Grandparent	315	33.1	2.31	61.9	10.45	2.21	0.42
Other relative	188	(B)	(B)	(B)	(B)	(B)	(B)
By nonrelative	1,368	33.0	1.03	62.3	5.25	2.11	0.19
In child's home	230	32.6	2.58	95.0	13.29	3.11	0.44
In provider's home	1,138	33.0	1.13	55.8	5.52	1.91	0.22
Organized child care facilities	1,377	34.5	0.99	65.1	2.60	2.08	0.10
Day/group care center	968	35.5	1.11	65.5	3.18	2.02	0.12
Nursery/preschool	409	32.1	1.97	64.2	4.55	2.23	0.19
School-based activity	14	(B)	(B)	(B)	(B)	(B)	(B)
Arrangements for children 5 to 14 years							
Total	1,324	20.0	0.89	$37.4	$1.97	$2.11	$0.10
By relative	104	(B)	(B)	(B)	(B)	(B)	(B)
Grandparent	68	(B)	(B)	(B)	(B)	(B)	(B)
Other relative	36	(B)	(B)	(B)	(B)	(B)	(B)
By nonrelative	437	20.0	1.46	34.8	2.78	1.92	0.15
In child's home	75	(B)	(B)	(B)	(B)	(B)	(B)
In provider's home	363	18.9	1.45	35.3	3.10	1.99	0.16
Organized child care facilities	516	21.8	1.59	45.4	3.76	2.32	0.16
Day/group care center	476	21.6	1.67	45.6	3.98	2.35	0.16
Nursery/preschool	40	(B)	(B)	(B)	(B)	(B)	(B)
School-based activity	266	16.2	1.67	27.6	2.99	2.03	0.28

B Base less than 200,000.

[1]Average of individual costs per hour for each arrangement.

Table 13. **Weekly Child Care Costs of Employed Mothers When Payments Are Shared Among Different Children: Fall 1991**

[Numbers in thousands. Limited to arrangement groups using 10 or more hours per week]

Age of youngest child and type of arrangement	Number of arrangement groups	Weekly hours per arrangement group		Weekly cost per arrangement group		Hourly cost per arrangement group	
		Mean[1]	Standard error	Mean	Standard error	Mean[2]	Standard error
Arrangements for all children							
Total	1,326	49.5	2.67	$67.9	$4.34	$1.97	$0.24
By relative	228	57.0	7.48	51.0	7.84	1.09	0.17
Grandparent	100	(B)	(B)	(B)	(B)	(B)	(B)
Other relative	128	(B)	(B)	(B)	(B)	(B)	(B)
By nonrelative	687	48.3	3.65	66.7	5.42	1.93	0.26
In child's home	278	51.3	5.97	73.1	10.42	1.98	0.49
In provider's home	409	46.3	4.61	62.4	5.62	1.90	0.27
Organized child care facilities	360	50.1	4.79	79.8	7.93	2.17	0.37
Day/group care centers	309	50.6	4.94	76.1	8.18	1.84	0.26
Nursery/preschool	51	(B)	(B)	(B)	(B)	(B)	(B)
School-based activity	51	(B)	(B)	(B)	(B)	(B)	(B)
Youngest child in arrangement under 5 years							
Total	939	58.4	3.20	$77.6	$4.78	$1.88	$0.22
By relative	173	(B)	(B)	(B)	(B)	(B)	(B)
Grandparent	64	(B)	(B)	(B)	(B)	(B)	(B)
Other relative	109	(B)	(B)	(B)	(B)	(B)	(B)
By nonrelative	482	56.8	4.42	78.3	6.72	2.06	0.34
In child's home	188	(B)	(B)	(B)	(B)	(B)	(B)
In provider's home	293	54.7	5.65	75.7	6.26	2.13	0.35
Organized child care facilities	284	57.2	5.09	86.8	9.14	2.00	0.43
Day/group care centers	233	59.5	5.09	83.4	9.67	1.53	0.21
Nursery/preschool	51	(B)	(B)	(B)	(B)	(B)	(B)
School-based activity	-	-	-	-	-	-	-
Youngest child in arrangement 5 to 14 years							
Total	387	27.8	2.78	$44.5	$8.36	$2.17	$0.66
By relative	55	(B)	(B)	(B)	(B)	(B)	(B)
Grandparent	36	(B)	(B)	(B)	(B)	(B)	(B)
Other relative	19	(B)	(B)	(B)	(B)	(B)	(B)
By nonrelative	205	28.4	4.16	39.7	5.93	1.62	0.28
In child's home	90	(B)	(B)	(B)	(B)	(B)	(B)
In provider's home	115	(B)	(B)	(B)	(B)	(B)	(B)
Organized child care facilities	76	(B)	(B)	(B)	(B)	(B)	(B)
Day/group care centers	76	(B)	(B)	(B)	(B)	(B)	(B)
Nursery/preschool	-	(B)	(B)	(B)	(B)	(B)	(B)
School-based activity	51	(B)	(B)	(B)	(B)	(B)	(B)

- Represents zero.
B Base less than 200,000.

[1]Represents the sum of the number of hours used by the individual children in this arrangement.
[2]Average of individual costs per hour per child for each shared arrangement.

Appendix A. **Overview of the SIPP Program**

BACKGROUND

The Survey of Income and Program Participation (SIPP) provides a major expansion in the kind and amount of information available to analyze the economic situation of households and persons in the United States. The information supplied by this survey is expected to provide a better understanding of changes in the level of well-being of the population and how economic situations are related to the demographic and social characteristics of individuals. The data collected in SIPP will be especially useful in studying Federal transfer programs, estimating program cost and effectiveness, and assessing the effect of proposed changes in program regulations and benefit levels. Analysis of other important national issues, such as tax reform, Social Security program costs, and national child care programs can be expanded and refined, based on the information from this survey.

SURVEY CONTENT

There are three basic elements contained in the overall design of the content of the survey. The first is a control card that serves several important functions. The control card is used to record basic social and demographic characteristics for each person in the household at the time of the initial interview. Because households in the SIPP panels of 1985 through 1991 were interviewed up to eight times, the card is also used to record changes in characteristics such as age, educational attainment, and marital status, and to record the dates when persons enter or leave the household. Finally, during each interview, information on each source of income received and the name of each job or business is transcribed to the card.

The second major element of the survey content is the core portion of the questionnaire. The core questions are repeated at each interview; they cover labor force activity, the types and amounts of income received, and participation status in various programs during the 4-month reference period prior to the interview date. Some of the important elements of labor force activity are recorded separately for each week of the period. The receipt of income and the amounts are recorded on a monthly basis with the exception of amounts of property income (interest, dividends, rent, etc.). Data for these types are recorded as totals for the 4-month period. The core also contains questions covering attendance in postsecondary schools, private health insurance coverage, public or subsidized rental housing, low income energy assistance, and school breakfast and lunch participation.

The third major element is the various supplements or topical modules that will be included during selected household visits. The topical modules cover areas that need not be examined every 4 months. Certain of these topical modules are considered to be so important that they are viewed as an integral part of the overall survey. Other topical modules have more specific and more limited purposes. The third wave of the 1991 SIPP Panel contained items on child care arrangements used by families with children under 15 years of age. This panel was used to produce the data shown in this report.

SAMPLE DESIGN

Each household in the SIPP sample is scheduled to be interviewed at 4-month periods. The reference period for most of the core income and labor force items is the 4-month period preceding the interview. For example, households interviewed in October 1991 were asked questions for the months June, July, August, and September. In the case of the child care items, the reference period is for the month prior to the interview date.

The sample households within a given panel are divided into four subsamples of nearly equal size. These subsamples are called rotation groups and one rotation group is interviewed each month. In general, one cycle of four interviews covering the entire sample, using the same questionnaire, is called a wave (occasionally, only three rotation groups are interviewed). This design was chosen because it provides a smooth and steady workload for data collection and processing.

In this report, Wave 3 of the 1991 Panel covered the common interview months of October, November, and December 1991, and January 1992.

SURVEY OPERATIONS

Data collection operations are managed through the Census Bureau's 12 permanent regional offices. A staff of interviewers assigned to SIPP conducts interviews by

personal visit each month with most interviewing completed during the first 2 weeks of that month. Completed questionnaires are transmitted to the regional offices where they undergo an extensive clerical edit before being entered into the Bureau's SIPP data processing system. Upon entering this processing system, the data are subjected to a detailed computer edit. Errors identified in this phase are corrected and computer processing continues.

Two of the major steps of computer processing are the assignment of weights to each sample person and imputation for missing survey responses. The weighting procedures assure that SIPP estimates of the number of persons agree with independent estimates of the population within specified age, race, and sex categories. The procedures also assure close correspondence with monthly CPS estimates of households. In cases where there were missing or inconsistent data in the child care items, a survey nonresponse was assigned a value in the imputation phase of processing. (See appendix D for more details about the imputation procedures.)

The longitudinal design of SIPP dictates that all persons 15 years of age and over present as household members at the time of the first interview be part of the survey throughout the entire length of the survey period (about 2-1/2 years). To meet this goal, the survey collects information useful in locating persons who move. In addition, field procedures were established that allow for the transfer of sample cases between regional offices. Persons moving within a 100-mile radius of an original sampling area (a county or group of counties) are followed and continue with the normal personal interviews at 4-month intervals. Those moving to a new residence that falls outside the 100-mile radius of any SIPP sampling area are interviewed by telephone. The geographic areas defined by these rules contain more than 95 percent of the U.S. population.

Because many types of analysis using SIPP data will be dependent not on data for individuals but on groups of individuals (households, families, etc.), provisions were made to interview all "new" persons living with original sample persons (those interviewed in the first wave). These new sample persons entering the survey through contact with original sample persons are considered as part of the sample only while residing with the original sample person.

Appendix B. **Definitions and Explanations**

Population coverage. The estimates in this report are restricted to the civilian, noninstitutional population of the United States and members of the Armed Forces living off post or with their families on post. The estimates exclude persons in group quarters.

Age. The age (in years) of the child is based on the age of the person at his last birthday.

Race. The population is divided into three groups on the basis of race: White, Black, and "other races." The last category includes American Indians, Asian/Pacific Islanders, and any other race except White and Black.

Hispanic origin. Persons of Hispanic origin were determined on the basis of a question that asked for self-identification of the person's origin or descent. Respondents were asked to select their origin (or the origin of some other household member) from a "flash card" listing ethnic origins. Hispanics, in particular, were those who indicated that their origin was Mexican, Puerto Rican, Cuban, Central or South American, or some other Spanish origin. It should be noted that Hispanics may be of any race.

Marital status. Data refer to marital status at the time of the survey. Two classifications are used in this report: "married, spouse present" and "all other marital statuses" (also sometimes referred to as "unmarried"). The latter classification includes persons who are separated, married but whose spouse is absent from the household, widowed, divorced, or single (never married).

Children. Children in this report refer to all persons under 15 years of age in households who are living either with their natural parents, adopted or step-parents, or with legal guardians. Excluded are children in foster homes. Preschool-age children are defined as children under 5 years of age, while grade-school age children are those 5 to 14 years of age. Infants are defined as children under 1 year of age.

Child care arrangements. Data on child care arrangements were obtained from persons interviewed during the period of October 1991 to January 1992 and who were the parents or legal guardians of children under 15 years of age at the time of the interview and who were also employed, looking for work, or enrolled in school or in training during the month prior to the interview. The arrangements used to care for the children refer to the arrangements usually used during the month preceding the interview while the parent/guardian was in any one of the aforementioned activities.

Child care arrangements for each child were classified as either primary or secondary arrangements depending on which arrangement was used most and which was used second most (as measured in hours) during a typical week. Attending school and care by the child himself were also included as possible child care arrangements since they indicate what the child was doing during the hours that the mother was at work or in school.

Latchkey kids. For the purposes of this report, latchkey kids are defined as those children who are reported to be caring for themselves without any adult supervision for some period of time during the mother's working hours.

It is possible that these reported incidents are underestimated if respondents leave their children unsupervised for brief amounts of time and forget to report these occurrences or if they are embarrassed to admit such occurrences to the interviewer.

Child care expenses. The monetary amounts shown in this report represent the estimated weekly costs for all children under 15 years of age while the mother was at work or in school. Excluded are the amounts of any noncash payments made for child care services. Costs attributable to nursery schools or preschools are included but costs incurred when enrolling a child in kindergarten or grade school are excluded from the estimates.

If a child used an arrangement for which a separate cash payment was made to the child care provider (a separate arrangement), the hourly cost of child care was determined by dividing the cost paid to the provider by the number of hours the child was in care. If two or more children in the family were cared for by the same provider and one cash payment was made to cover the cost of all of the children in the provider's care (a shared arrangement), the hourly cost of this arrangement was determined by dividing the cost paid to the provider for all of the children by the total number of hours all the children were cared for by that single provider. Hourly

cost for the separate and shared arrangements are shown to illustrate variations in the pricing structure of child care arrangements under different circumstances.

Time lost from work or school. This refers to the time lost from work or school by the respondent or the respondent's spouse in the reference month due to a failure in obtaining child care arrangements.

Employment status. Persons in the child care supplement were classified as being employed in the month preceding the interview if they either (a) worked as paid employees or worked in their own business or profession or on their own farm or worked without pay in a family business or farm, or (b) were temporarily absent from work either with or without pay.

Full-time and part-time employment. The data on full- and part-time workers pertain to the number of hours a person usually works per week from all jobs, either as an employee or in his own business or profession. Persons who report themselves as usually working 35 or more hours each week are classified as full-time workers; persons who report that they usually work fewer than 35 hours per week are classified as part-time workers.

Work shift. Information on the hours during the day that the respondent was working was obtained from the work schedule module in this particular wave of SIPP. If one-half or more of the hours a respondent worked at his/her principal job fell between 8:00 a.m. and 4:00 p.m. and the respondent said that these hours were regularly scheduled, then the respondent was categorized as having his/her principal job in a day shift. All other hourly schedules were categorized as being in non-day shifts. This definition is more stringent than those used by other researchers who may have included persons with irregular or split shifts in the day-shift category as long as one-half or more of their working hours were in the 8:00 a.m. to 4:00 p.m. core period.

Occupation. Data refer to the civilian job currently held at the time of the interview. If two or more jobs were held, the occupation shown in this report refers to the respondent's principal job (i.e., the job in which the respondent worked the most hours).

Years of school completed. Data on years of school completed in this report are derived from the combination of answers to questions concerning the highest grade of school attended by the person and whether or not that grade was completed. The following categories used in this report are based on the number of years of school completed which may or may not coincide with actual achievement of any degrees attained or diplomas granted: not a high school graduate (less than 12 years); high school graduate (12 years); college, 1 to 3 years (13 through 15 years); and college, 4 or more years (16 or more years of school completed).

School enrollment. School enrollment in this report includes enrollment in an elementary, high school, or college, or any vocational, technical, or business school.

Geographic regions. The four major regions of the United States for which data are presented in this report represent groups of States as follows:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Metropolitan-nonmetropolitan residence. The population residing in metropolitan statistical areas (MSA's) constitutes the metropolitan population. MSA's are defined by the Office of Management and Budget for use in presentation of statistics by agencies of the Federal Government. An MSA is a geographic area consisting of a large population nucleus, together with adjacent communities which have a high degree of economic and social integration. The definitions specify a boundary around each large city so as to include most or all of its suburbs. Entire counties form the MSA building blocks, except in New England where cities and towns are used.

An area qualifies for recognition as an MSA if (1) it includes a city of at least 50,000 population, or (2) it includes a Census Bureau-defined urbanized area of at least 50,000 with a total metropolitan population of at least 100,000 (75,000 in New England). In addition to the county containing the main city or urbanized area, an MSA may include other counties having strong commuting ties to the central county.

Central cities. The largest city in each MSA is always designated a central city. There may be additional central cities if specified requirements, designed to identify places of central character with the MSA, are met. The balance of the MSA outside the central city or cities is often regarded as equivalent to the "suburbs."

Family income. Family money income represents the total money income of all members of the family. It is the average monthly amount reported for the 4-month period prior to the survey date. The income estimates cited in this report are based on money income alone and do not include the value of noncash benefits.

Mean income. The mean income is the amount obtained by dividing the total income of a group by the number of units in that group.

Poverty level. Persons whose monthly family income for the 4-month period prior to the survey interview fell below the average monthly poverty level cutoff for that family were determined to be living in poverty in this report. The poverty threshold for a family of 4 in 1991 was about $13,924 annually or $1,160 per month.

Symbols. A dash (-) represents zero or a number which rounds to zero; "B" means that the base is too small to show the derived measure (less than 200,000 persons); "X" means not applicable; and "NA" indicates that the data are not available.

Rounding of estimates. Individual numbers are rounded to the nearest thousand without being adjusted to group totals which are independently rounded. Derived measures are based on unrounded numbers when possible; otherwise, they are based on the rounded numbers.

Appendix C. **Source and Accuracy of Estimates**

SOURCE OF DATA

The SIPP universe is the noninstitutionalized resident population living in the United States. This population includes persons living in group quarters, such as dormitories, rooming houses, and religious group dwellings. Crew members of merchant vessels, Armed Forces personnel living in military barracks, and institutionalized persons, such as correctional facility inmates and nursing home residents are not eligible to be in the survey. United States citizens residing abroad are not eligible to be in the survey. Foreign visitors who work or attend school in this country and their families are eligible; all others are not eligible. With the exceptions noted above, field representatives interview eligible persons who are at least 15 years of age at the time of the interview.

The 1991 Panel SIPP sample is located in 230 Primary Sampling Units (PSU's) each consisting of a county or a group of contiguous counties. Within these PSU's, expected clusters of two living quarters (LQ's) were systematically selected from lists of addresses prepared for the 1980 decennial census to form the bulk of the sample. To account for LQ's built within each of the sample areas after the 1980 census, a sample containing clusters of four LQ's was selected from permits issued for construction of residential LQ's up until shortly before the beginning of the panel.

In jurisdictions that have incomplete addresses or do not issue building permits, small land areas were sampled, and expected clusters of four LQ's within those areas were listed, and then subsampled. In addition, a sample of LQ's was selected from a supplemental frame that included LQ's identified as missed in the 1980 census.

The first interview occurred during February, March, April, or May of 1991. Interviews for approximately one-fourth of the sample took place in each of these months. For the remainder of the panel, interviews for each person occurred every 4 months. At each interview, the reference period was the 4 months preceding the interview month.

Occupants of about 93 percent of all eligible living quarters participated in the first interview of the panel. For later interviews, field representatives interviewed only original sample persons (those in Wave 1 sample households and interviewed in Wave 1) and persons living with them. The Bureau automatically designated all first wave noninterviewed households as noninterviews for all subsequent interviews. Field representatives conducted personal interviews in the first, second, and sixth waves only. The remaining interviews were telephone interviews. For personal interviews, original sample persons were followed if they moved to a new address, unless the new address was more than 100 miles from a SIPP sample area. If the original sample persons moved farther than 100 miles from a SIPP sample area, telephone interviews were attempted. When original sample persons moved to remote parts of the country and were unreachable by telephone, moved without leaving a forwarding address, or refused the interview, additional noninterviews resulted.

As a part of most waves, subjects that are important to meet SIPP goals and do not require repeated measurement during the panel are covered. The data on these subjects are of particular interest to data users and policy makers. These subjects are covered once during the panel or annually. By collecting data once for the panel or annually, respondent burden is reduced. A specific set of questions on a subject is called a topical module. For this report, the topical modules analyzed include questions on child care arrangements. They were implemented in Wave 3 of the 1991 Panel.

Noninterviews. Tabulations in this report were drawn from interviews conducted from October 1991 through January 1992. Table C-1 summarizes information on nonresponse for the interview months in which the data used to produce this report were collected.

Table C-1. **Household Sample Size by Month and Interview Status**

Month	Eligible	Interviewed	Noninterviewed	Nonresponse rate[1] (%)
October 1991	4,200	3,400	700	18
November 1991	4,000	3,400	600	15
December 1991	4,100	3,400	600	16
January 1992	4,000	3,400	600	15

[1]Due to rounding of all numbers to the nearest 100, there are some inconsistencies. The percentage was calculated using unrounded numbers.

Some respondents do not respond to some of the questions. Therefore, the overall nonresponse rate for some items such as income and money related items is

higher than the nonresponse rates in table C-1. For more discussion of nonresponse see the *Quality Profile for the Survey of Income and Program Participation*, May 1990, by T. Jabine, K. King, and R. Petroni, available from Customer Services, Data User Services Division, of the U.S. Census Bureau (301-763-6100).

WEIGHTING PROCEDURE

SIPP person weights in each panel were derived from several stages of weight adjustments. In the first wave, each person was given a base weight equal to the inverse of his/her probability of selection. For each subsequent interview, the Bureau gave each person a base weight that accounted for following movers.

A factor was applied to each interviewed person's weight to account for the SIPP sample areas not having the same population distribution as the strata from which they were derived.

A noninterview adjustment factor was applied to the weight of every occupant of interviewed households to account for persons in noninterviewed occupied households eligible for the sample. (The Bureau treated individual nonresponse within partially interviewed households with imputation. No special adjustment was made for noninterviews in group quarters.)

The Bureau used complex techniques to adjust the weights for nonresponse. For a further explanation of the techniques used, see the *Nonresponse Adjustment Methods for Demographic Surveys at the U.S. Bureau of the Census*, November 1988, Working Paper 8823, by R. Singh and R. Petroni. The success of these techniques in avoiding bias is unknown. An example of successfully avoiding bias is in "Current Nonresponse Research for the Survey of Income and Participation" (paper by Petroni, presented at the Second International Workshop on Household Survey Nonresponse, October 1991).

An additional stage of adjustment to persons' weights was performed to reduce the mean square errors of the survey estimates. This was accomplished by ratio adjusting the sample estimates to agree with monthly Current Population Survey (CPS) type estimates of the civilian (and some military) noninstitutional population of the United States at the national level by demographic characteristics including age, sex, and race as of the specified date. The Bureau brought CPS estimates by age, sex, and race into agreement with adjusted estimates from the 1980 decennial census. Adjustments to the 1980 decennial census estimates reflect births, deaths, immigration, emigration, and changes in the Armed Forces since 1980. In addition, SIPP estimates were controlled to independent Hispanic controls and adjusted to assign equal weights to husbands and wives within the same household. All of the above adjustments were implemented for each reference month and the interview month.

ACCURACY OF ESTIMATES

SIPP estimates are based on a sample. The sample estimates may differ somewhat from the values obtained from administering a complete census using the same questionnaire, instructions, and enumerators. The difference occurs because with an estimate based on a sample survey two types of errors are possible: nonsampling and sampling. Estimates of the magnitude of the SIPP sampling error can be provided, but this is not true of nonsampling error. The next few sections describe SIPP nonsampling error sources, followed by a discussion of sampling error, its estimation, and its use in data analysis.

Nonsampling Variability. Nonsampling errors can be attributed to many sources, including:

- inability to obtain information about all cases in the sample,
- definitional difficulties,
- differences in the interpretation of questions,
- inability or unwillingness on the part of the respondents to provide correct information,
- inability to recall information,
- errors made in collection (e.g., recording or coding the data),
- errors made in processing the data,
- errors made in estimating values for missing data,
- biases resulting from the differing recall periods caused by the interviewing pattern used,
- undercoverage.

Quality control and edit procedures were used to reduce errors made by respondents, coders, and interviewers. More detailed discussions of the existence and control of nonsampling errors in the SIPP are in the *SIPP Quality Profile*.

Undercoverage in SIPP resulted from missed living quarters and missed persons within sample households. It is known that undercoverage varies with age, race, and sex. Generally, undercoverage is larger for males than for females and larger for Blacks than for Nonblacks. Ratio estimation to independent age-race-sex population controls partially corrects for the bias due to survey undercoverage. However, biases exist in the estimates when persons in missed households or missed persons in interviewed households have characteristics different from those of interviewed persons in the same age-race-sex group. Further, the independent population controls for undercoverage in the Census were not adjusted.

A common measure of survey coverage is the coverage ratio, the estimated population before ratio adjustment divided by the independent population control. Table C-2 shows CPS coverage ratios for age-sex-race groups for 1992. The CPS coverage ratios can exhibit some variability from month to month; however, this table shows a typical set of coverage ratios. Other Census Bureau household surveys like the SIPP experience similar coverage.

A bias may also occur in estimates related to "latchkey kids." An example of such an estimate is total number of children in self-care. The following causes for bias are suggested.

1. The complexity of the questions and concepts used to identify "latchkey kids" may have led to confusion among respondents.
2. In some jurisdictions the parents of children found to be "latchkey kids" could be charged with the crime "child neglect."
3. Respondents may fear they are placing a child in jeopardy by disclosing that the child is alone.
4. It may be more socially desirable to report that a child is supervised than that the child cares for self.

The misreporting of any specific child care arrangement may affect the overall distribution of child care arrangements shown in this report. For example, an underestimate in the proportion of children caring for self would result in overestimates for one or more of the other child care arrangements.

Comparability with Other Estimates. Exercise caution when comparing data from this report with data from other SIPP publications or with data from other surveys. Comparability problems are from varying seasonal patterns for many characteristics, different nonsampling errors, and different concepts and procedures. Refer to the *SIPP Quality Profile* for known differences with data from other sources and further discussion.

Some of the data in this report comes from previous yearly SIPP child care reports entitled, *Who's Minding the Kids? Child Care Arrangements:*[1] from the SIPP P-70 series. The parameters used in these reports are in table C-3. CPS parameters are in table C-4.

Sampling Variability. Standard errors indicate the magnitude of the sampling error. They also partially measure the effect of some nonsampling errors in response and enumeration, but do not measure any systematic biases in the data. The standard errors mostly measure the variations that occurred by chance because a sample was surveyed rather than the entire population.

[1]Winter 1984 to 1985, Fall 1986, Fall 1987, Fall 1988.

USES AND COMPUTATION OF STANDARD ERRORS

Confidence Intervals. The sample estimate and its standard error enable one to construct confidence intervals, ranges that would include the average result of all possible samples with a known probability. For example, if all possible samples were selected and surveyed, each of these under essentially the same conditions and using the same sample design, and if an estimate and its standard error were calculated from each sample, then:

1. Approximately 68 percent of the intervals from one standard error below the estimate to one standard error above the estimate would include the average result of all possible samples.
2. Approximately 90 percent of the intervals from 1.645 standard errors below the estimate to 1.645 standard errors above the estimate would include the average result of all possible samples.
3. Approximately 95 percent of the intervals from 1.960 standard errors below the estimate to 1.960 standard errors above the estimate would include the average result of all possible samples.

The average estimate derived from all possible samples is or is not contained in any particular computed interval. However, for a particular sample, one can say with a specified confidence that the confidence interval includes the average estimate derived from all possible samples.

Hypothesis Testing. Standard errors may also be used for hypothesis testing. Hypothesis testing is a procedure for distinguishing between population characteristics using sample estimates. The most common type of hypothesis tested is: (1) the population characteristics are identical versus (2) they are different. One can perform tests at various levels of significance, where a level of significance is the probability of concluding that the characteristics are different when, in fact, they are identical.

Unless noted otherwise, all statements of comparison in the report passed a hypothesis test at the 0.10 level of significance or better. This means that, for differences cited in the report, the estimated absolute difference between parameters is greater than 1.645 times the standard error of the difference.

To perform the most common test, compute the difference $X_A - X_B$, where X_A and X_B are sample estimates of the characteristics of interest. A later section explains how to derive an estimate of the standard error of the difference $X_A - X_B$. Let that standard error be s_{DIFF}. If $X_A - X_B$ is between -1.645 times s_{DIFF} and +1.645 times s_{DIFF}, no conclusion about

the characteristics is justified at the 10 percent significance level. If, on the other hand, $X_A - X_B$ is smaller than -1.645 times s_{DIFF} or larger than +1.645 times s_{DIFF}, the observed difference is significant at the 10 percent level. In this event, it is commonly accepted practice to say that the characteristics are different. Of course, sometimes this conclusion will be wrong. When the characteristics are, in fact, the same, there is a 10 percent chance of concluding that they are different.

Note that as more tests are performed, more erroneous significant differences will occur. For example, at the 10 percent significance level, if 100 independent hypothesis tests are performed in which there are no real differences, it is likely that about 10 erroneous differences will occur. Therefore, interpret the significance of any single test cautiously.

Note Concerning Small Estimates and Small Differences. Summary measures are shown in the report only when the base is 200,000 or greater. Because of the large standard errors involved, there is little chance that estimates will reveal useful information when computed on a base smaller than 200,000. Also, nonsampling error in one or more of the small number of cases providing the estimate can cause large relative error in that particular estimate. We show estimated numbers, however, even though the relative standard errors of these numbers are larger than those for the corresponding percentages. Smaller estimates are provided primarily to permit such combinations of the categories as serve each user's needs. Therefore, be careful in the interpretation of small differences since even a small amount of nonsampling error can cause a borderline difference to appear significant or not, thus distorting a seemingly valid hypothesis test.

Standard Error Parameters and Tables and Their Use. Most SIPP estimates have greater standard errors than those obtained through a simple random sample because clusters of living quarters were sampled for the SIPP. To derive standard errors at a moderate cost and applicable to a wide variety of estimates, a number of approximations were made. Estimates with similar standard error behavior were grouped, and two parameters (denoted "a" and "b") were developed to approximate the standard error behavior of each group of estimates. Because the actual standard error behavior was not identical for all estimates within a group, the standard errors computed from these parameters provide an indication of the order of magnitude of the standard error for any specific estimate. These "a" and "b" parameters vary by characteristic and by demographic subgroup to which the estimate applies. Use 1991 Panel base "a" and "b" parameters found in table C-3 for Wave 3 1991 Panel estimates.

For users who wish further simplification, general standard errors are provided in tables C-5 and C-6. Note that these standard errors need to be adjusted by a factor from table C-3. The standard errors resulting from this simplified approach are less accurate. Methods for using these parameters and tables for computation of standard errors follow.

Standard Errors of Estimated Numbers. There are two ways to compute the approximate standard error, s_x, of an estimated number shown in this report. The first uses the formula

$$s_x = fs \qquad (1)$$

where f is a factor from table C-3, and s is the standard error of the estimate obtained by interpolation from table C-5. Alternatively, approximate s_x using the formula,

$$s_x = \sqrt{ax^2 + bx} \qquad (2)$$

from which the standard errors in table C-5 were calculated. Here x is the size of the estimate, and a and b are the parameters in table C-3 associated with the particular type of characteristic. Use of formula 2 will provide more accurate results than the use of formula 1. When calculating standard errors for numbers from cross-tabulations involving different characteristics, use the factor or set of parameters for the characteristic which will give the largest standard error.

Illustration. Suppose the SIPP estimate of the number of children under age 15 living in the United States with working mothers in the Fall of 1991 is 31,000,000. The appropriate "a" and "b" parameters and the "f" factor to use for calculating the standard error for the estimate are found in table C-3. They are

$$a = -0.0001340, b = 7{,}514, f = 0.52$$

From table C-5,

$$s = 859{,}000$$

Using formula (1), the approximate standard error is

$$s_x = 0.52(859{,}000) \doteq 447{,}000$$

The 90-percent confidence interval is from 30,264,685 to 31,735,315. Therefore, a conclusion that the average estimate derived from all possible samples, lies within a range computed in this way would be correct for roughly 90 percent of all samples.

Using formula (2), the approximate standard error is

$$= s_x\sqrt{(-0.0000848)\,(30{,}287{,}000)^2 + (4755)\,(30{,}287{,}000)}$$
$$\doteq 323{,}000$$

The 90-percent confidence interval is from 30,468,665 to 31,531,335.

Standard Errors of Estimated Percentages. The reliability of an estimated percentage, computed using sample data for both numerator and denominator, depends on the size of the percentage and its base. When the numerator and denominator of the percentage have different parameters, use the parameter (or appropriate factor) from table C-3 indicated by the numerator.

Calculate the approximate standard error, $s_{(x,p)}$, of an estimated percentage p using the formula

$$s_{(x,p)} = fs \qquad (3)$$

where p is the percentage of persons/families/households with a particular characteristic such as the percent of children in child care centers.

In this formula, f is the appropriate "f" factor from table C-3 and s is obtained by interpolation from table C-6.

Alternatively, approximate it by the formula:

$$s_{(x,p)} = \sqrt{\frac{b}{x}(p)(100\text{-}p)} \qquad (4)$$

from which the standard errors were calculated in table C-6 . Here x is the total number of persons, families, households, or unrelated individuals in the base of the percentage, p is the percentage ($0 \leq p \leq 100$), and b is the "b" parameter in table C-3 associated with the characteristic in the numerator of the percentage. Use of this formula will give more accurate results than use of formula (3) above.

Illustration. Suppose, the SIPP estimate of the number of children under age 15 is 56,000,000. Of these, 50.0 percent had working mothers in Fall 1991. Using formula (3) and the "f" factor of 0.52 from table C-3 and s from table C-6, the approximate standard error is

$$s_{xp} = 0.52(1.10)$$
$$= 0.57\%$$

Consequently, the 90-percent confidence interval is from 49.1 percent to 50.9 percent.

Using formula (4) and the "b" parameter of 7,514 from table C-3, the approximate standard error is

$$s_{xp} = \sqrt{\frac{7{,}514}{56{,}000{,}000}(50)(50)}$$
$$= .58\ \%$$

Standard Error of a Difference. The standard error of a difference between two sample estimates, x and y, is approximately equal to

$$s_{(x-y)} = \sqrt{s_x^2 + s_y^2 - 2rs_xs_y} \qquad (5)$$

where s_x and s_y are the standard errors of the estimates x and y and r is the correlation coefficient between the characteristics estimated by x and y. The estimates can be numbers, averages, percents, ratios, etc. Underestimates or overestimates of standard error of differences result if the estimated correlation coefficient is overestimated or underestimated, respectively. In this report, we assume r is 0.

Illustration. Suppose that we are interested in the difference in the percentage of children living with unemployed mothers versus unemployed fathers. Of the 34,198,000 children living with their mothers, 4 percent had mothers who were unemployed. Of the 1,301,000 children living with their fathers, 7 percent had fathers who were unemployed.

Using the appropriate "b" parameter from table C-3 and formula (4), the standard errors for the children living with unemployed mothers and fathers are .29 and 1.94 percent, respectively.

The standard error of the difference is computed using formula (5):

$$s_{(x-y)} = \sqrt{(.29)^2 + (1.94)^2 - 2(0)(.29)(1.94)} = 1.96 \qquad (6)$$

Suppose it is desired to test at the 10-percent significance level whether the above two percentages differ significantly. To perform the test, compare the difference of 3 percent to the product 1.96 x 1.645 = 3.22 percent. Since the percent difference is not more than 1.645 times the standard error of the difference, the data does not support the hypothesis that the 2-percent estimates are significantly different at the 10 percent level.

Table C-2. **1992 CPS Coverage Ratios**

Age	Non-Black		Black		All persons		
	Males	Females	Males	Females	Males	Females	Total
0 to 14	0.963	0.965	0.927	0.926	0.957	0.959	0.958
15	0.962	0.949	0.899	0.919	0.952	0.944	0.948
16	0.969	0.936	0.923	0.907	0.962	0.932	0.947
17	0.981	0.975	0.845	0.862	0.975	0.957	0.966
18	0.939	0.926	0.883	0.846	0.930	0.913	0.922
19	0.860	0.872	0.754	0.801	0.844	0.861	0.853
20 to 24	0.913	0.927	0.734	0.832	0.889	0.913	0.901
25 to 26	0.927	0.940	0.688	0.877	0.897	0.931	0.914
27 to 29	0.910	0.954	0.707	0.864	0.885	0.941	0.914
30 to 34	0.893	0.948	0.691	0.883	0.870	0.939	0.905
35 to 39	0.910	0.949	0.763	0.899	0.895	0.942	0.919
40 to 44	0.929	0.951	0.824	0.906	0.919	0.946	0.933
45 to 49	0.956	0.966	0.903	0.956	0.951	0.965	0.958
50 to 54	0.940	0.961	0.807	0.877	0.927	0.951	0.940
55 to 59	0.944	0.941	0.826	0.825	0.932	0.928	0.930
60 to 62	0.965	0.956	0.792	0.850	0.948	0.944	0.946
63 to 64	0.905	0.907	0.669	0.872	0.884	0.903	0.894
65 to 67	0.935	0.979	0.783	0.875	0.921	0.969	0.947
68 to 69	0.925	0.942	0.789	0.831	0.913	0.931	0.923
70 to 74	0.926	0.993	0.856	1.014	0.920	0.995	0.962
75 to 99	0.977	0.989	0.764	0.912	0.961	0.983	0.975
15+	0.928	0.953	0.782	0.883	0.912	0.944	0.929
0+	0.936	0.955	0.827	0.895	0.923	0.947	0.935

Table C-3. **SIPP Generalized Variance Parameters for 1991, 1990, 1988, 1987, 1986, and 1985 Panels**

Characteristics	a	b	f
1991 Panel			
0 to 14 child care	-0.0001340	7,514	0.52
Family child support[1]	-0.0000883	9,286	0.58
Female, 16+ income and labor force	-0.0000778	7,514	0.52
1990 Panel			
0 to 14 child care	-0.0000867	4,890	0.42
Family child support[1]	-0.0000612	6,043	0.47
Female, 16+ income and labor force	-0.0000547	4,890	0.42
1988 Panel			
0 to 14 child care	-0.0000848	4,755	0.42
Family child support[1]	-0.0000468	4,522	0.41
Female, 16+ income and labor force	-0.0000468	4,522	0.41
1987 Panel			
0 to 14 child care	-0.0001110	5,772	0.46
Family child support[1]	-0.0000645	5,773	0.46
Female, 16+ income and labor force	-0.0000645	5,773	0.46
1986 Panel			
0 to 14 child care	-0.0001173	6,077	0.47
Family child support[1]	-0.0000679	6,075	0.47
Female, 16+ income and labor force	-0.0000679	6,075	0.47
1985 Panel			
0 to 14 child care	-0.0001155	5,980	0.47
Family child support[1]	-0.0000669	5,980	0.47
Female, 16+ income and labor force	-0.0000669	5,980	0.47

[1]This parameter includes Family Child Care Expenses.

Table C-4. **CPS Variance Parameters for 1977 and 1991**

Characteristics	a	b
June 1977		
0 to 14 child care	-0.000202	3,082
March 1991		
Children 0 to 14	-0.000026	4,785

Table C-5. **Standard Errors of Estimated Numbers of Persons**

[Numbers in thousands]

Size of estimate	Standard error	Size of estimate	Standard error
200	74	12,000	558
300	91	14,000	600
500	117	16,000	639
600	128	18,000	675
800	148	20,000	708
1,000	165	25,000	783
2,000	233	30,000	847
3,000	285	31,000	859
5,000	366	34,000	893
6,000	400	35,000	904
8,000	460	56,000	1,084
10,000	512	57,000	1,091

Table C-6. **Standard Errors of Estimated Percentages of Persons Estimates**

Base of estimated percentage (thousands)	Estimated percentages					
	≤ 1 or ≤ 99	2 or 98	5 or 95	10 or 90	25 or 75	50
200	3.68	5.17	8.06	11.09	16.01	18.48
300	3.00	4.23	6.58	9.05	13.07	15.09
500	2.33	3.27	5.10	7.01	10.12	11.69
600	2.12	2.99	4.65	6.40	9.24	10.67
800	1.84	2.59	4.03	5.54	8.00	9.24
1,000	1.64	2.31	3.60	4.96	7.16	8.27
2,000	1.16	1.64	2.55	3.51	5.06	5.84
3,000	0.95	1.34	2.08	2.86	4.13	4.77
5,000	0.74	1.03	1.61	2.22	3.20	3.70
6,000	0.67	0.94	1.47	2.02	2.92	3.37
8,000	0.58	0.82	1.27	1.75	2.53	2.92
10,000	0.52	0.73	1.14	1.57	2.26	2.61
12,000	0.47	0.67	1.04	1.43	2.07	2.39
14,000	0.44	0.62	0.96	1.33	1.91	2.21
16,000	0.41	0.58	0.90	1.24	1.79	2.07
18,000	0.39	0.55	0.85	1.17	1.69	1.95
20,000	0.37	0.52	0.81	1.11	1.60	1.85
25,000	0.33	0.46	0.72	0.99	1.43	1.65
30,000	0.30	0.42	0.66	0.91	1.31	1.51
31,000	0.30	0.42	0.65	0.89	1.29	1.48
34,000	0.28	0.40	0.62	0.85	1.23	1.42
35,000	0.28	0.39	0.61	0.84	1.21	1.40
56,000	0.22	0.31	0.48	0.66	0.96	1.10
57,000	0.22	0.31	0.48	0.66	0.96	1.10
80,000	0.18	0.26	0.40	0.55	0.80	0.92
100,000	0.16	0.23	0.36	0.50	0.72	0.83
150,000	0.13	0.19	0.29	0.40	0.58	0.67
200,000	0.12	0.16	0.25	0.35	0.51	0.58

Appendix D. **Data Quality**

Imputation procedures. Two principal determinants of the quality of data collected in household surveys are the magnitude of the imputed responses and the accuracy of the responses that are provided. This appendix provides information on the imputation rates for selected child care items in the Survey of Income and Program Participation. The Fall 1991 data include interviews conducted from October 1991 to January 1992 and refer to child care arrangements used in the month prior to the survey.

Imputed responses refer either to missing responses for specific questions or "items" in the questionnaire or to responses that were rejected in the editing procedure because of improbable or inconsistent responses. An example of the latter is when a 14-year-old child is said to be cared for in a nursery school during the time his or her parent is at work.

The estimates shown in this report are produced after all items have been edited and imputed whenever necessary. Missing or inconsistent responses to specific items are assigned a value in the imputation phase of the data processing operation. The procedure used to assign or impute most responses for missing or inconsistent data for the SIPP is commonly referred to as the "hot deck" imputation method. The process assigns item values reported in the survey by respondents to nonrespondents. The respondent from whom the value is taken is called the "donor." Values from donors are assigned by controlling edited demographic and labor force data available for both donors and nonrespondents. The control variables used for child care items generally included the age of the child for whom there was missing data, the parent's marital status, and whether the parent was employed full- or part- time, looking for work or attending school.

Item nonresponses. Imputation rates for both primary and secondary child care arrangements (items 3a and 4a in the questionnaire shown in appendix E) for the respondents' three youngest children are shown in table D-1. The imputation rates are calculated by dividing the number of missing or inconsistent responses by the total number of responses that should have been provided based on the number of children in the household who required child care responses. In general, the level of imputation for primary child care arrangements for employed women in the SIPP panels in this report averaged about 9 percent. This was up from a 7-percent imputation rate for the 1988 data panel. Lower imputation rates were found for secondary arrangements (about 3 percent).

Table D-2 shows imputation rates for other selected items. About 14 percent of the responses concerning whether a cash payment was made for the child's primary child care arrangement were imputed; another 7 percent failed to answer the question if any cash payment was made for secondary child care services. For those who were determined to have made a cash payment, about 17 percent failed to report on the amount of the payment for the primary arrangement while 11 percent failed to report the cash amount for the secondary arrangement.

Imputation rates for cash payment items were also higher in this survey than in previous years. In the fall 1988 survey, imputation rates of 10 percent and 4 percent, respectively, were recorded for failures in reporting on whether a cash payment was made for child care for either the primary or secondary arrangement. Imputation rates of 13 and 9 percent, respectively, were also reported for the amounts of the primary and secondary payments.

In cases where two or more children shared the same arrangement and when only one payment was made for the arrangement, respondents were asked to indicate which children shared arrangements and the total cost for the shared arrangement. Approximately 16 percent of the respondents failed to indicate if the primary arrangements were shared and another 10 percent failed to indicate if the secondary arrangements were shared. Hence, an additional degree of uncertainty was added to the procedure which ultimately derived the total cost of all arrangements.

Hours spent in child care. Approximately 16 to 17 percent of respondents in the survey had their responses imputed on the number of hours their children spent each week in child care. Hours that the child spent commuting to school or to the arrangement were not counted as part of the arrangement for several reasons. First, travel time on a bus is clearly not equivalent to time spent under a provider's supervision. Researchers attempting to estimate the time children spend in day care centers or nursery schools would not want to include supervision by a bus driver in their estimates.

Secondly, since child care costs per hour were computed in this report, adding unpaid travel time to the arrangement time would clearly bias the hourly child care costs downward.

The reader should also be aware that these estimates probably contain rounding errors resulting from the respondent mentally computing weekly estimates from daily time schedules which may involve fractional hours. The specificity of the question does not necessarily result in an equivalently accurate estimate. Estimating intervening travel between arrangements, which could involve several different trips over the course of a typical grade-school-age child's day, could involve memory and computational errors large enough to make these estimates less than reliable.

Table D-1. **Imputation Rates for Primary and Secondary Child Care Arrangements for Children Under 15 Years: Fall 1991**

[Data represent actual numbers of arrangements mentioned in the survey. Data are shown for arrangements for all children under 15 years of age with parents in the labor force or in school]

Type of arrangement	Primary arrangement[1]			Secondary arrangement[2]		
		Imputed responses			Imputed responses	
	Total	Number	Percent	Total	Number	Percent
Total	5,286	487	9.2	1,664	50	3.0
Child's other parent/stepparent	580	51	8.8	341	11	3.2
Child's brother/sister	54	2	3.7	120	9	7.5
Child's grandparent	360	45	12.5	295	5	1.7
Other relative of child	168	16	9.5	99	2	2.0
Nonrelative of child	457	41	9.0	289	10	3.5
Day/group care center	306	31	10.1	136	2	1.5
Nursery/preschool	133	6	4.5	34	-	-
School-based activity	109	14	12.8	72	-	-
Kindergarten/grade school	2,827	262	9.3	60	1	1.7
Child cares for self	95	11	11.6	179	8	4.5
Parent works at home	126	6	4.8	18	1	5.6
Parent cares for child at work	64	2	3.1	21	1	4.8
Child not born as of last month	7	-	-	-	-	-

- Represents zero.
[1]Item 3a in child care questionnaire (appendix E).
[2]Item 4a in child care questionnaire (appendix E).

Table D-2. **Imputation Rates for Selected Child Care Items: Fall 1991**

[Data represent actual numbers of arrangements mentioned in survey. Data are shown for arrangements for all children under 15 years of age with parents in the labor force or in school]

Item number	Question	Number of arrangements		
			Imputed responses	
		Total	Number	Percent
	Place of arrangement			
3b	Primary arrangement	1,619	187	11.6
4b	Secondary arrangement	1,144	38	3.3
	Any payment made?			
3c	Primary arrangement	1,533	212	13.8
4c	Secondary arrangement	925	62	6.7
	Is payment shared?			
3d	Primary arrangement	652	107	16.4
4d	Secondary arrangement	361	37	10.2
	Amount of payment			
3e	Primary arrangement	989	168	17.0
4e	Secondary arrangement	493	56	11.4
	Weekly hours of care			
3f	Primary arrangement	5,279	816	15.5
4f	Secondary arrangement	1,664	287	17.2
	Changes in arrangements			
5a	For children under 5	1,625	194	11.9
5b	For children 5 to 14	3,654	635	17.4
5c	Number of changes	1,150	183	15.9

Note: Item numbers refer to child care questionnaire (appendix E).

Section 5 — TOPICAL MODULES (Continued)

Part B — CHILD CARE

CHECK ITEM T2

Refer to cc items 27 and 24.
Is . . . the designated parent or guardian of children under 15 years of age who live in this household?

8100 1☐ Yes
2☐ No — *SKIP to Check Item T12, page 61*

CHECK ITEM T3

Is "Worked" (code 170) marked on the ISS?

8102 1☐ Yes — *SKIP to Check Item T6*
2☐ No

CHECK ITEM T4

Refer to item 30a, page 13.
Was . . . enrolled in school during the reference period?

8103 1☐ Yes
2☐ No — *SKIP to Check Item T5*

1. About how many hours per week did . . . usually spend in school last month?

8104 ☐☐ Hours
OR
x1☐ Hours varied
x2☐ Don't know
x3☐ Not enrolled last month
} *SKIP to Check Item T6*

CHECK ITEM T5

Refer to item 2a, page 2.
Did . . . spend any time looking for work or on layoff from a job during the reference period?

8106 1☐ Yes
2☐ No — *SKIP to Check Item T12, page 61*

2. About how many hours per week did . . . usually spend looking for a job last month?

8108 ☐☐ Hours
OR
x1☐ Hours varied
x2☐ Don't know
x3☐ Did not look for a job last month — *SKIP to Check Item T12, page 61*

NOTES

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Section 5 — TOPICAL MODULES (Continued)

Part B — CHILD CARE (Continued)

CHECK ITEM T6 *Refer to cc items 18, 19, 24, and 27.*

Beginning with the youngest child enter person numbers, ages, and names of children under 15, who are household members, for whom the person is a parent or guardian.

	YOUNGEST	SECOND YOUNGEST	THIRD YOUNGEST
	Person No. ____ Age ____	Person No. ____ Age ____	Person No. ____ Age ____
	B114	B116	B118
	Name	Name	Name

ASK 3a–5d for the youngest child and then ask 3a–5d for the second and third youngest.

Now we have some questions about how the children in this household were cared for while . . . was working (in school/looking for a job).

3a. During *(Last month),* **what was** *(Name of child)* **usually doing or how was** *(Name of child)* **usually cared for during most of the hours that . . . worked (was in school/was looking for a job)?**

Mark the arrangement in which the child spent the most hours in a typical week last month.

Mark (X) only one box.

	YOUNGEST	SECOND YOUNGEST	THIRD YOUNGEST
	B120	B122	B124
1	☐ Child's other parent/stepparent	☐ Child's other parent/stepparent	☐ Child's other parent/stepparent
2	☐ Child's brother/sister	☐ Child's brother/sister	☐ Child's brother/sister
3	☐ Child's grandparent	☐ Child's grandparent	☐ Child's grandparent
4	☐ Other relative of child	☐ Other relative of child	☐ Other relative of child
5	☐ Nonrelative of child	☐ Nonrelative of child	☐ Nonrelative of child
6	☐ Child in day/group care center	☐ Child in day/group care center	☐ Child in day/group care center
7	☐ Child in nursery/preschool	☐ Child in nursery/preschool	☐ Child in nursery/preschool
8	☐ Child in organized school-based activity (before/after school)	☐ Child in organized school-based activity (before/after school)	☐ Child in organized school-based activity (before/after school)
9	☐ Child in kindergarten, elementary or secondary school	☐ Child in kindergarten, elementary or secondary school	☐ Child in kindergarten, elementary or secondary school
	SKIP to Check Item T7	*SKIP to Check Item T7*	*SKIP to Check Item T7*
10	☐ Child cares for self	☐ Child cares for self	☐ Child cares for self
11	☐ . . . works at home	☐ . . . works at home	☐ . . . works at home
12	☐ . . . cares for child at work (in class/while job hunting)	☐ . . . cares for child at work (in class/while job hunting)	☐ . . . cares for child at work (in class/while job hunting)
	SKIP to Check Item T7	*SKIP to Check Item T7*	*SKIP to Check Item T7*
13	☐ Child not born and/or . . . not guardian as of last month	☐ Child not born and/or . . . not guardian as of last month	☐ Child not born and/or . . . not guardian as of last month
	SKIP to next child or Check Item T12, page 61	*SKIP to next child or Check Item T12, page 61*	*SKIP to Check Item T12, page 61*
14	☐ . . . did not work, go to school, or look for job last month		
	SKIP to T12, page 61		

b. Was *(Name of child)* **usually cared for at his/her home, at someone else's home, or at some other place?**

	YOUNGEST	SECOND YOUNGEST	THIRD YOUNGEST
	B126	B128	B130
1	☐ Child's home	☐ Child's home	☐ Child's home
2	☐ Other private home	☐ Other private home	☐ Other private home
3	☐ Other place	☐ Other place	☐ Other place

CHECK ITEM T7 Is box 3–B marked in item 3a?

	YOUNGEST	SECOND YOUNGEST	THIRD YOUNGEST
	B132	B134	B136
1	☐ Yes	☐ Yes	☐ Yes
2	☐ No — *SKIP to 3f, page 58*	☐ No — *SKIP to 3f, page 58*	☐ No — *SKIP to 3f, page 58*

3c. Was any money payment usually made for this arrangement?

	YOUNGEST	SECOND YOUNGEST	THIRD YOUNGEST
	B138	B140	B142
1	☐ Yes	☐ Yes — *SKIP to 3d*	☐ Yes — *SKIP to 3d*
2	☐ No — *SKIP to 3f, page 58*	☐ No — *SKIP to 3f, page 58*	☐ No — *SKIP to 3f, page 58*

CHECK ITEM T8 Are there 2 or more children listed in Check Item T8?

	B144
1	☐ Yes
2	☐ No — *SKIP to 3e*

ASK OR VERIFY —

3d. Does . . . (or . . .'s family) pay for *(Name of child)***'s child care separately, or does the payment for the care you just described also cover some other child?**

	YOUNGEST	SECOND YOUNGEST	THIRD YOUNGEST
	B146	B148	B150
1	☐ Payment for youngest child separately	☐ Payment for second youngest child separately	☐ Payment for third youngest child separately
2	☐ Includes another child	☐ Includes another child	☐ Includes another child

ASK OR VERIFY —

e. In a typical week, how much did . . . (or . . .'s family) usually pay in this arrangement *(Name of child)*? *(If payment includes money paid for another child, write in total amount for all children in first mentioned child's column. If dollar amount already recorded from previous child/ren/ mark code X2 or X3 as applicable.)*

	YOUNGEST	SECOND YOUNGEST	THIRD YOUNGEST
	B152 $. 00 Per week	B154 $. 00 Per week	B156 $. 00 Per week
X1	☐ DK	☐ DK	☐ DK
X2		☐ Youngest child	☐ Youngest child
X3			☐ Second youngest

Previously recorded for —

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Section 5 — TOPICAL MODULES (Continued)

Part B — CHILD CARE (Continued)

	YOUNGEST	SECOND YOUNGEST	THIRD YOUNGEST
3f. **About how many hours per week was** *(Name of child)* **usually cared for in the arrangement while . . . worked (was in school/was looking for a job) last month?**	8158 ☐☐ Hours	8160 ☐☐ Hours	8162 ☐☐ Hours
g. **Was any other arrangement usually used for** *(Name of child)* **in a typical week last month?**	8164 1 ☐ Yes 2 ☐ No — *SKIP to Check Item T11*	8166 1 ☐ Yes 2 ☐ No — *SKIP to Check Item T11*	8168 1 ☐ Yes 2 ☐ No — *SKIP to Check Item T11*
4a. **What did** *(Name of child)* **do or how was** *(Name of child)* **cared for during most of the other hours that . . . worked (was in school/ was looking for a job)?** ***Mark the arrangement in which the child spent the second most hours in a typical week.*** *Mark (X) only one box.*	8170 1 ☐ Child's other parent/stepparent 2 ☐ Child's brother/sister 3 ☐ Child's grandparent 4 ☐ Other relative of child 5 ☐ Nonrelative of child 6 ☐ Child in day/ group care center 7 ☐ Child in nursery/ preschool 8 ☐ Child in organized school-based activity (before/after school) 9 ☐ Child in kindergarten, elementary or secondary school 10 ☐ Child cares for self 11 ☐ . . . works at home 12 ☐ . . . cares for child at work (in class/while job hunting) *SKIP to Check Item T9*	8172 1 ☐ Child's other parent/stepparent 2 ☐ Child's brother/sister 3 ☐ Child's grandparent 4 ☐ Other relative of child 5 ☐ Nonrelative of child 6 ☐ Child in day/ group care center 7 ☐ Child in nursery/ preschool 8 ☐ Child in organized school-based activity (before/after school) 9 ☐ Child in kindergarten, elementary or secondary school 10 ☐ Child cares for self 11 ☐ . . . works at home 12 ☐ . . . cares for child at work (in class/while job hunting) *SKIP to Check Item T9*	8174 1 ☐ Child's other parent/stepparent 2 ☐ Child's brother/sister 3 ☐ Child's grandparent 4 ☐ Other relative of child 5 ☐ Nonrelative of child 6 ☐ Child in day/ group care center 7 ☐ Child in nursery/ preschool 8 ☐ Child in organized school-based activity (before/after school) 9 ☐ Child in kindergarten, elementary or secondary school 10 ☐ Child cares for self 11 ☐ . . . works at home 12 ☐ . . . cares for child at work (in class/while job hunting) *SKIP to Check Item T9*
b. **Was** *(Name of child)* **usually cared for at his/her home, at someone else's home, or at some other place?**	8176 1 ☐ Child's home 2 ☐ Other private home 3 ☐ Other place	8178 1 ☐ Child's home 2 ☐ Other private home 3 ☐ Other place	8180 1 ☐ Child's home 2 ☐ Other private home 3 ☐ Other place
CHECK ITEM T9 Is box 3–8 marked in item 4a?	8182 1 ☐ Yes 2 ☐ No — *SKIP to 4f*	8184 1 ☐ Yes 2 ☐ No — *SKIP to 4f*	8186 1 ☐ Yes 2 ☐ No — *SKIP to 4f*
4c. **Was any money payment usually made for this arrangement?**	8188 1 ☐ Yes 2 ☐ No — *SKIP to 4f*	8190 1 ☐ Yes — *SKIP to 4d* 2 ☐ No — *SKIP to 4f*	8192 1 ☐ Yes — *SKIP to 4d* 2 ☐ No — *SKIP to 4f*
CHECK ITEM T10 Are there 2 or more children listed in Check Item T6?	8194 1 ☐ Yes 2 ☐ No — *SKIP to 4e*		
4d. *ASK OR VERIFY* — **Does . . . (or . . .'s family) pay for** *(Name of child)*'s **child care separately, or does the payment for the care you just described also cover some other child?**	8196 1 ☐ Payment for youngest child separately 2 ☐ Includes another child	8198 1 ☐ Payment for second youngest child separately 2 ☐ Includes another child	8200 1 ☐ Payment for third youngest child separately 2 ☐ Includes another child
e. *ASK OR VERIFY* — **In a typical week, how much did . . . (or . . .'s family) usually pay in this arrangement for** *(Name of child)*? *(If payment includes money paid for another child, write in total amount for all children in first mentioned child's column. If dollar amount already recorded from previous child(ren) mark code X2 or X3 as applicable.)*	8202 $ ☐☐ . 00 Per week x1 ☐ DK	8204 $ ☐☐ . 00 Per week x1 ☐ DK Previously recorded for — x2 ☐ Youngest child	8206 $ ☐☐ . 00 Per week x1 ☐ DK Previously recorded for — x2 ☐ Youngest child x3 ☐ Second youngest
f. **About how many hours per week was** *(Name of child)* **usually cared for in the arrangement while . . . worked (was in school/was looking for a job)?**	8208 ☐☐ Hours	8210 ☐☐ Hours	8212 ☐☐ Hours

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Section 5 — TOPICAL MODULES (Continued)

Part B — CHILD CARE (Continued)

CHECK ITEM T11	YOUNGEST	SECOND YOUNGEST	THIRD YOUNGEST
Refer to Check Item T8. Is (Name of child) less than 5 years old?	8214 1 ☐ Less than 5 years old 2 ☐ 5 or more years old — *SKIP to 5b*	8216 1 ☐ Less than 5 years old 2 ☐ 5 or more years old — *SKIP to 5b*	8218 1 ☐ Less than 5 years old 2 ☐ 5 or more years old — *SKIP to 5b*
5a. During the past 12 months, did . . . make any changes in the arrangements used for *(Name of child)* **for 1 week or more during the time . . . was working (at school/looking for a job)?** *Do not consider temporary changes for less than 1 week. If . . . stopped working (attending school/looking for a job) when schools were closed, then NO change should be recorded. Mark (X) box 3.*	8220 1 ☐ Yes — *SKIP to 5c* 2 ☐ No — *SKIP to next child or Check Item T11.1* 3 ☐ Stopped working (attending school/ looking for work) when arrangement ended — *SKIP to next child or Check Item T11.1*	8222 1 ☐ Yes — *SKIP to 5c* 2 ☐ No — *SKIP to next child or Check Item T11.1* 3 ☐ Stopped working (attending school/ looking for work) when arrangement ended — *SKIP to next child or Check Item T11.1*	8224 1 ☐ Yes — *SKIP to 5c* 2 ☐ No — *SKIP to next child or Check Item T11.1* 3 ☐ Stopped working (attending school/ looking for work) when arrangement ended — *SKIP to next child or Check Item T11.1*
b. During the past 12 months, did . . . make any changes in the arrangements used for *(Name of child)* **during the time . . . was working (at school/looking for a job)? Consider only changes that lasted for 1 week or more, including changes over the summer or between** *(Name of child's)* **school terms.** *Do not count changes in teachers or schools as a change of arrangement. If . . . stopped working (attending school/looking for a job) when schools were closed, then NO change should be recorded. Mark (X) box 3.*	8226 1 ☐ Yes — *SKIP to 5c* 2 ☐ No — *SKIP to next child or Check Item T11.1* 3 ☐ Stopped working (attending school/ looking for work) when arrangement ended — *SKIP to next child or Check Item T11.1*	8228 1 ☐ Yes — *SKIP to 5c* 2 ☐ No — *SKIP to next child or Check Item T11.1* 3 ☐ Stopped working (attending school/ looking for work) when arrangement ended — *SKIP to next child or Check Item T11.1*	8230 1 ☐ Yes — *SKIP to 5c* 2 ☐ No — *SKIP to next child or Check Item T11.1* 3 ☐ Stopped working (attending school/ looking for work) when arrangement ended — *SKIP to next child or Check Item T11.1*
c. Excluding any time spent in kindergarten or grade school, how many different arrangements did *(Name of child)* **use in the last 12 months.** *Include only arrangements lasting for 1 week or more. Do not count different school grades or terms as a different arrangement.*	8232 ☐☐ Arrangements	8234 ☐☐ Arrangements	8236 ☐☐ Arrangements
d. For what reason(s) did the child care arrangements change? *Mark (X) all that apply.*	8238 1 ☐ Beginning/ending/ changes in child's school enrollment 8244 2 ☐ Beginning/ending/ changes in . . .'s job 8250 3 ☐ Beginning/ending/ changes in . . .'s school enrollment 8256 4 ☐ Cost 8262 5 ☐ Availability or hours of care provider 8268 6 ☐ Reliability of care provider 8274 7 ☐ Quality of care provided 8280 8 ☐ Location or accessability to care provider 8286 9 ☐ Found better/less expensive/more convenient provider 8292 10 ☐ Never had any regular arrangement 8298 11 ☐ Child outgrew arrangement 8304 12 ☐ No longer eligible for assistance 8310 13 ☐ Arrangement no longer available 8316 14 ☐ Other — *Specify* →	8240 1 ☐ Beginning/ending/ changes in child's school enrollment 8246 2 ☐ Beginning/ending/ changes in . . .'s job 8252 3 ☐ Beginning/ending/ changes in . . .'s school enrollment 8258 4 ☐ Cost 8264 5 ☐ Availability or hours of care provider 8270 6 ☐ Reliability of care provider 8276 7 ☐ Quality of care provided 8282 8 ☐ Location or accessability to care provider 8288 9 ☐ Found better/less expensive/more convenient provider 8294 10 ☐ Never had any regular arrangement 8300 11 ☐ Child outgrew arrangement 8306 12 ☐ No longer eligible for assistance 8312 13 ☐ Arrangement no longer available 8318 14 ☐ Other — *Specify* →	8242 1 ☐ Beginning/ending/ changes in child's school enrollment 8248 2 ☐ Beginning/ending/ changes in . . .'s job 8254 3 ☐ Beginning/ending/ changes in . . .'s school enrollment 8260 4 ☐ Cost 8266 5 ☐ Availability or hours of care provider 8272 6 ☐ Reliability of care provider 8278 7 ☐ Quality of care provided 8284 8 ☐ Location or accessability to care provider 8290 9 ☐ Found better/less expensive/more convenient provider 8296 10 ☐ Never had any regular arrangement 8302 11 ☐ Child outgrew arrangement 8308 12 ☐ No longer eligible for assistance 8314 13 ☐ Arrangement no longer available 8320 14 ☐ Other — *Specify* →
	SKIP to next child or Check Item T11.1	*SKIP to next child or Check Item T11.1*	*Go Check Item T11.1*

Section 5 — TOPICAL MODULES (Continued)

Part B — CHILD CARE (Continued)

CHECK ITEM T11.1

Refer to cc items 27 and 24.
Is . . . the designated parent or guardian of 4 or more children under 15 years of age who live in this household?

8322
1 ☐ Yes
2 ☐ No — *SKIP to 6b*

6a. Considering all of . . .'s children under 15 in the household, even those not previously mentioned, how much did . . . (or . . .'s family) pay for child care for all of . . .'s children for all arrangements used in a typical week last month?

(Exclude the cost of school tuition for kindergarten, elementary, or secondary school.)

8324
$ ____ . 00 Per week
x2 ☐ All costs already recorded for the three youngest children

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b. During *(Last month)***, were any changes made in the child care arrangements used for any of your children because the child care provider who usually took care of the child(ren) was not available?**

(Include both unexpected and anticipated losses of child care providers, even for part of the day.)

8326
1 ☐ Yes
2 ☐ No — *SKIP to Check Item T12*

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c. When these changes in arrangements occurred *(Last month)* **did . . . (or . . .'s spouse) lose any time from work (school/job hunting)?**

8328
1 ☐ Yes, respondent lost time
2 ☐ Yes, spouse lost time
3 ☐ Both, respondent and spouse lost time
4 ☐ No
x1 ☐ Don't know

NOTES

FORM SIPP-11300 (6-5-91)

Section 5 — TOPICAL MODULES

Part A — WORK SCHEDULE

CHECK ITEM T1 Is "Worked" (code 170) marked on the ISS? — 8000 1☐ Yes — *Read Statement C* 2☐ No — *SKIP to Check Item T2, page 56*

STATEMENT C **You said . . . worked during** *(Read reference period months).* **These next few questions ask about . . .'s work schedule during a typical week that . . . worked during that 4-month period.**

1a. How many employers did . . . work for during a typical week? *(Count self-employed as one employer.)* — 8002 1☐ 1 2☐ 2 3☐ 3 +

If two or more employers, ask items 1b—h for the first job, then repeat for the second job.

	JOB 1	JOB 2
b. How many hours per day did . . . work that week?	8004 ☐☐.☐ Hours	8006 ☐☐.☐ Hours
c. How many days did . . . work during that week?	8008 ☐ Days	8010 ☐ Days
d. Which days of the week were these? *Mark (X) all that apply.*	8012 1☐ Monday through Friday 8016 2☐ Sunday 8020 3☐ Monday 8024 4☐ Tuesday 8028 5☐ Wednesday 8032 6☐ Thursday 8036 7☐ Friday 8040 8☐ Saturday 8044 x5☐ All seven days	8014 1☐ Monday through Friday 8018 2☐ Sunday 8022 3☐ Monday 8026 4☐ Tuesday 8030 5☐ Wednesday 8034 6☐ Thursday 8038 7☐ Friday 8042 8☐ Saturday 8046 x5☐ All seven days
e. During that week, at what time of day did . . . begin work most days?	8048 ☐☐:☐☐ (Time) 8050 1☐ a.m. 2☐ p.m.	8052 ☐☐:☐☐ (Time) 8054 1☐ a.m. 2☐ p.m.
f. At what time of day did . . . end work most days?	8056 ☐☐:☐☐ (Time) 8058 1☐ a.m. 2☐ p.m.	8060 ☐☐:☐☐ (Time) 8062 1☐ a.m. 2☐ p.m.

NOTES

TOPICAL MODULES

Section 5 — TOPICAL MODULES (Continued)

Part A — WORK SCHEDULE (Continued)

	JOB 1	JOB 2
1g. Which of the following best describes . . .'s work schedule at this job? *(SHOW FLASHCARD KK)* *Mark (X) only one.*	8064 1 ☐ **Regular daytime schedule** 2 ☐ **Regular evening shift** 3 ☐ **Regular night shift** 4 ☐ **Rotating shift (one that changes regularly from days to evenings or nights)** 5 ☐ **Split shift (one consisting of two distinct periods each day)** 6 ☐ **Irregular schedule (one that changes from day to day)** 7 ☐ **Other** — *Specify* → _____	8066 1 ☐ **Regular daytime schedule** 2 ☐ **Regular evening shift** 3 ☐ **Regular night shift** 4 ☐ **Rotating shift (one that changes regularly from days to evenings or nights)** 5 ☐ **Split shift (one consisting of two distinct periods each day)** 6 ☐ **Irregular schedule (one that changes from day to day)** 7 ☐ **Other** — *Specify* → _____
h. What is the MAIN reason . . . works *(Read shift description marked in item 1g)?* *Mark (X) only one.*	VOLUNTARY REASONS 8068 1 ☐ Better child care arrangements 2 ☐ Better pay 3 ☐ Better arrangements for care of other family members 4 ☐ Allows time for school 5 ☐ Other voluntary reasons INVOLUNTARY REASONS 6 ☐ Could not get any other job 7 ☐ Requirement of the job 8 ☐ Other involuntary reasons	VOLUNTARY REASONS 8070 1 ☐ Better child care arrangements 2 ☐ Better pay 3 ☐ Better arrangements for care of other family members 4 ☐ Allows time for school 5 ☐ Other voluntary reasons INVOLUNTARY REASONS 6 ☐ Could not get any other job 7 ☐ Requirement of the job 8 ☐ Other involuntary reasons
CHECK ITEM T1.1 *Refer to item 1a.* Is there another job to ask about? (Is box 2 or 3 marked?)	8072 1 ☐ Yes — *Ask items 1b through 1h for next job* 2 ☐ No — *Go to Check Item T2, page 56*	*Go to Check Item T2, page 56*

NOTES

TOPICAL MODULES